EXHIBIT F

to

ADVANCEME INC.'S OPENING CLAIM CONSTRUCTION BRIEF

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
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LM71/0806

PATENT ADMINISTRATOR
TESTA HURWITZ & THIBEAULT
HIGH STREET TOWER
125 HIGH STREET
BOSTON MA 02110

EXAMINER	
MYHRE, J	

ART UNIT	PAPER NUMBER
2707	

DATE MAILED: 08/06/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- File Copy

Office Action Summary

Application No.	Applicant(s)
08/880,398	Johnson
Examiner	**Group Art Unit**
James Myhre	2767

☒ Responsive to communication(s) filed on *Jul 19, 1999*

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-19* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-19* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

Continued Prosecution Application

1. The request filed on July 19, 1999 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/890,398 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6, 8-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (4,750,119).

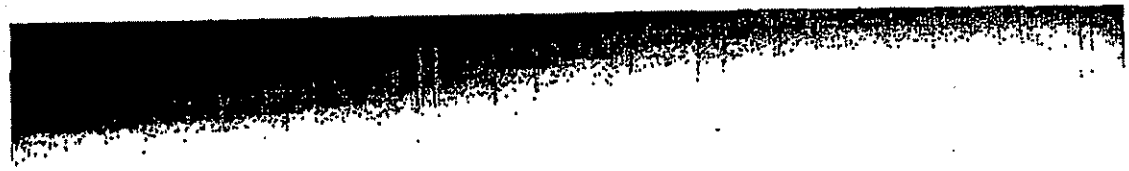
Claims 1 (Twice Amended) and 10 (Twice Amended): Cohen discloses a system and method for purchase and transaction processing, comprising:

a. Accepting a customer identification at a merchant (purchasing center) and forwarding payment information to a merchant processor (escrow agent)(col 3, lines 58-61; col 5, Table I; and col 7, lines 50-51);

b. Authorizing and settling the payment by the merchant processor (escrow agent)(col 6, lines 34-43) and forwarding a portion of the payment to a loan repayment receiver (Cohen forwards a portion of the payment to a "future benefit guarantor" or "an insurance company" (col 3, lines 4-9 and 31-38, and col 4, lines 17-21). See Official Notice below); and

c. Receiving and applying the portion of the payment to reduce the loan amount (Cohen increases the future benefit by the portion of payment received (col 4, lines 21-24). See Official Notice below).

Official Notice is taken that it is old and well known within the finance art that automatic deductions can be made to pay outstanding debts, such as loans, mortgages, insurance, etc. Numerous automatic deductions are also made from transactions to cover sales taxes, credit card transaction charges, etc. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the portion of the transaction that Cohen was transferring to the insurance company could be transferred to a loan company, a bank, a mortgage company, or any other account which the vendor desired. Whether these payments were applied to decrease a loan amount, make a mortgage payment, or increase an account balance would obviously depend entirely on the destination of the transfer. One would have been motivated to transfer a portion of the transaction to a loan repayment receiver in view of Cohen disclosure of transferring the portion to an insurance company and in view of the widespread use of automatic payments for paying mortgages (which are one type of loan).



Claims 2- 5 and 11-14: Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 above, and further discloses accepting a credit card number as the customer identification (col 5, Table II), but does not disclose the card being a debit card, a smart card, or a charge card. Official Notice is taken these are old and well known within the business art as types of "credit" cards by which consumers pay for goods and services in place of using cash. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any one of these cards when using the transaction system of Cohen. One would have been motivated to allow the system to use any one or more of these types of cards in order to increase the customer's payment options and in view of the widespread use of these cards in transactions.

Claims 6 and 15: Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 above, and further discloses accepting the customer identifier at the merchant's location (col 3, lines 40-57 and col 7, lines 50-51).

Claims 8-9 and 17-18: Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 above, and further discloses accumulating the payments, then periodically (daily) forwarding them to the loan processor (insurance company)(col 4, lines 21-24).

Claim 19: Cohen discloses a system and method for automated loan repayment as discussed in Claim 10 above, and further discloses forwarding a percentage of the payment (col 7, lines 25-41).

4. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (4,750,119) in view of Hilt et al (5,465,206).

Claims 7 and 16: Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 above, but does not explicitly disclose electronically accepting the customer identifier. Hilt discloses a similar system and method for electronically paying bills by the customer entering the information "manually, via paper, at an ATM, or via a PC, telephone-keypad, screen telephone or personal digital assistant" (col 11, lines 51-54). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to enter the customer identifier electronically using any one of the methods discussed by Hilt. One would have been motivated to do so by Cohen's disclosure of the customer placing the order over a telephone (col 3, lines 42-44) and the widespread use of card readers in retail establishments to facilitate rapid and error-free entry of the customer's identifier.

Response to Arguments

5. Applicant's arguments filed July 19, 1999 have been fully considered but they are not persuasive.

Referencing Applicant's argument that Cohen's purchasing center not being substantially equivalent to the claimed merchant processor, the referenced purchasing center correlates to the claimed merchant in that it collects the customer and order information and forwards the information to the escrow agent. The referenced escrow agent receives this information,

completes the transaction to include transferring the monies as the claimed merchant processor, and then forwards portions of the payment to the appropriate vendor accounts, one of which is the vendor's future benefit guarantor or insurance company. The referenced insurance company receives this payment and applies it to the appropriate account as the claimed loan repayment receiver.

Conclusion

6. This is a Continuation of applicant's earlier Application No. 08/890,398. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. James W. Myhre whose telephone number is (703) 308-7843. The examiner can normally be reached on weekdays from 6:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allen R. MacDonald, can be reached on (703) 305-9708. The fax phone number for Formal or Official faxes to Technology Center 2700 is (703) 308-9051 or 9052. Draft or informal faxes for this Art Unit can be submitted to (703) 305-0040.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-3900.

WM
August 3, 1999

ALLEN R. MACDONALD
SUPERVISORY PATENT EXAMINER

EXHIBIT G

to

ADVANCEME INC.'S OPENING CLAIM CONSTRUCTION BRIEF

Express Mail Label No.: EM401137173US

PATENT
Atty. Docket No. JHN-00[illegible]
(4750/2)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Johnson		
SERIAL NUMBER:	08/890,398	GROUP NUMBER:	2767
FILING DATE:	July 9, 1997	EXAMINER:	J. Myhre
TITLE:	Automated Loan Repayment		

CERTIFICATE OF EXPRESS MAILING UNDER 37 C.F.R 1.10

I hereby certify that this correspondence, and any documents referred to as enclosed therein, is/are being deposited with the United States Postal Service, postage prepaid, on June 7, 2000 utilizing the "Express Mail Post Office to Addressee" service of the United States Postal Service, mailing label number EM401137173US, in an envelope addressed to: The Honorable Commissioner of Patents and Trademarks, Washington, D.C. 20231.

June 7, 2000
Date of Signature and of Mail Deposit

Carrie Lilley

The Commissioner of Patents
Washington, D.C. 20231

Sir:

APPLICANT'S BRIEF ON APPEAL TO THE
BOARD OF PATENT APPEALS AND INTERFERENCES

This is Applicant's Brief (submitted in triplicate as required by 37 C.F.R. 1.192) in support of an appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 1-19 in the above-referenced application.

A Notice of Appeal was submitted to the Office on November 8, 1999, in which Appellant appealed the final rejection of claims 1-19 in the Office Action, made final, dated August 6, 1999. A five month extension of time up to and including June 8, 2000 for filing this

Appeal Brief is respectfully requested. A petition for the extension of time and the requisite fee are submitted herewith.

REAL PARTIES IN INTEREST

The Real Party in Interest is Advanceme, Inc. (formerly Countrywide Business Alliance) located at 1925 Vaughn Road Northwest, Suite 205, Kennesaw, GA 30144.

RELATED APPEALS AND INTERFERENCES

The Applicant's undersigned legal representative is unaware of another appeal or interference which will directly affect, or be directly affected by, or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-19 are pending in the above-identified application and are the subject of this appeal. Accordingly, claims 1-19 are set forth in the attached Appendix A.

STATUS OF AMENDMENTS

No amendments were filed subsequent to the Final Office Action mailed August 6, 1999. All previous amendments are believed to have been entered.

SUMMARY OF INVENTION

As defined by the claims on appeal, Applicant's invention generally relates to automated loan repayment which utilizes a "merchant processor" to forward at least a portion of a customer's payment (such as a Visa credit card payment) to a loan repayment receiver as repayment of at least a portion of an outstanding loan that the merchant has with a lender. As generally recited in the independent claims, the customer makes the payment by using a

"customer identifier," which could be, for example, a Visa or MasterCard credit card (see dependent claims 2 and 11, and page 5 of the originally-filed application, for example).

A "merchant processor" according to the invention is described with some particularity in the originally-filed application, and this description/definition should be used when interpreting and evaluating the claims. As indicated on pages 1-2 of the originally-filed application, a merchant processor generally is any entity dedicated to acquiring and processing merchant transactions. In acquiring and processing a merchant transaction, the merchant processor generally receives card payment information from a merchant or on behalf of a merchant, obtains authorization for the card payment from the card issuer, sends that authorization to the merchant, and then completes the transaction by paying the merchant, submitting the payment, and getting paid by the issuer. For this service, the merchant processor typically levies a fee on the merchant, and the fee typically is a percentage of the amount of the card payment transaction, such that the merchant receives from the merchant processor some amount less than the actual face-value of the amount the customer paid to the merchant with the card. The invention relates to modifying the existing merchant processor system that is now used by merchants to authorize and settle card payment transactions. In accordance with the invention, the modification of the existing merchant processor system allows the merchant processor to make payment to both a merchant and a lender (or other loan repayment receiver), whereas previously the merchant processor simply and only paid the merchant.

The invention thus generally relates to utilizing the existing "merchant processor" system, but modifying it according to the invention such that the merchant processor now pays a portion of what would normally go to the merchant 20 to the lender 60 or other loan repayment receiver

as repayment of at least a portion of the merchant's outstanding loan amount, as indicated by arrow 29 in FIG. 2 (pages 7 and 8 of the originally-filed application). The lender 60 or other loan repayment receiver then receives that portion of the payment forwarded by the merchant processor 300 and applies it to the merchant's outstanding loan amount to reduce that outstanding loan amount. The merchant processor 300 thus pays the merchant 20 some amount less than what the merchant 20 would receive in the conventional situation where the merchant processor operates in the traditional manner depicted in, and described in relation to, FIGS. 1A and 1B (page 8 of the originally-filed application). For example, instead of paying $98.10 to the merchant 20 on a $100 original card purchase, the merchant processor 300 might send $88.10 to the merchant 20 and the other $10.00 to the lender 60 or other loan repayment receiver (page 8 of the originally-filed application).

The claimed invention thus involves modifying the existing merchant processor system to allow repayment of a loan by a merchant via the processing by the modified merchant processor system of customers' card payments. Cash payments by customers are not part of the claimed invention as they do not involve a "customer identifier" and they do not get authorized and settled via a merchant processor. Only "customer identifier" payments from customers are part of the claimed invention, and these can include, for example, credit card, debit card, smart card, and charge card payments, according to the invention.

A considerable portion of the specification is devoted to describing the "modified merchant processor" of the present invention in comparison to prior art knowledge of electronic payment systems and methods. Although those teachings are summarized above, the Board is

strongly urged to study the specification before considering the prior art rejections on appeal. A copy of the specification is attached as Appendix B.

ISSUES

1. The first issue presented for appeal is whether the 35 U.S.C. §103(a) rejection is proper.

2. The second issue presented for appeal is whether appealed claims 1-6, 8-15, and 17-19, directed towards systems and methods for automated loan repayment, are patentable under 35 U.S.C. §103(a) over U.S. Patent No. 4,750,119 to Cohen et al. (hereinafter "Cohen").

3. The third issue presented for appeal is whether appealed claims 7 and 16, directed towards systems and methods for automated loan repayment including electronically accepting customer identifiers, are patentable under 35 U.S.C. §103(a) over Cohen in view of U.S. Patent No. 5,465,206 to Hilt et al. (hereinafter "Hilt").

4. Although Applicant believes that the above-identified issues correspond to all of the pending rejections, Applicants also appeal any other bases for rejection of the pending claims which were not explicitly stated in the Final Office Action, but which may be regarded as still pending.

GROUPING OF CLAIMS

Rejected claims 1-19 stand or fall together.

ARGUMENT

Pursuant to 37 C.F.R. §1.192(c)(8)(iv), the following sections discuss the legal standard applicable to the instant application, indicate the specific limitations in the rejected claims which are not disclosed in the applied references, and explain how such limitations render the claimed

subject matter unobvious over the prior art. Moreover, since the rejection addressed in issue 3 is based upon a combination of references, the following sections explain why features disclosed in the primary reference (Cohen *et al.*) are not properly combinable with features disclosed in the secondary reference (Hilt *et al.*), and why the references, either alone or in combination, fail to teach or suggest the claimed subject matter, taken as a whole.

1. The 35 U.S.C. §103(a) Rejection Is Not Proper.

Applicant respectfully requests that the final rejection of claims 1-19 under 35 U.S.C. § 103(a) be reversed, because the Examiner failed to cite references that satisfy the requirements for a proper obviousness rejection, and this rejection under 35 U.S.C. § 103(a) should not be maintained.

35 U.S.C. § 103(a) requires that for an invention to be patentable, the "differences between the subject matter sought to be patented and the prior art [must be] such that the subject matter as a whole would [not] have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The U.S. Supreme Court has set out four criteria for judging the obviousness or non-obviousness of an invention: (1) the scope and content of the prior art, (2) the level of ordinary skill in the art, (3) the differences between the claimed invention and the prior art; and (4) objective evidence of non-obviousness. *See, Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. *See* MPEP § 706.02(j).

> To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why

> the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

In the final rejection of claims 1-6, 8-15, and 17-19 under 35 U.S.C. § 103(a), the Examiner stated that

> "Cohen discloses a system and method for purchase and transaction processing comprising: a. Accepting a customer identification at a merchant (purchasing center) and forwarding payment information to a merchant processor (escrow agent)(col 3, lines 58-61; col 5, Table I; and col 7, lines 50-51; b. Authorizing and settling the payment by the merchant processor (escrow agent)(col 6, lines 34-43) and forwarding a portion of the payment to a loan repayment receiver (Cohen forwards a portion of the payment to a "future benefit guarantor" or "an insurance company" (col 3, lines 4-9 and 31-38, and col 4, lines 17-21). See Official Notice below)"

In addition, the Examiner took Official Notice that

> it is old and well known within the finance art that automatic deductions can be made to pay outstanding debts, such as loans, mortgages, insurance, etc. Numerous automatic deductions are also made from transactions to cover sales tax, credit card transaction charges, etc. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made that the portion of the transaction that Cohen was transferring to the insurance company could be transferred to a loan company, a bank, a mortgage company, or any other account which the vendor desired. . . . One would have been motivated to transfer a portion of the transaction to a loan repayment receiver in view of Cohen disclosure of transferring a portion to an insurance company . . . .

Applicant respectfully submits that neither Cohen nor the Examiner's Official Notice nor the combination of the two expressly or impliedly teaches or suggests the claimed invention, and the Examiner has failed to present a convincing line of reasoning as to why a skilled artisan would have found the claimed invention to have been obvious in light of the teachings of Cohen. In fact, the Examiner has failed to present any line of reasoning directed to why the teachings of Cohen would render the claimed invention obvious to the skilled artisan.

Neither Cohen nor the Examiner's Official Notice nor the combination of the two expressly or impliedly teaches or suggests the claimed invention. Cohen describes a purchasing system with a rebate feature, namely the bundling of a purchase of a good or service with an annuity. The annuity is payable to a purchaser, and it comes due on the twentieth anniversary of the close of the merchant's fiscal year in which the purchaser made the purchase (column 1, lines 45-48). The rebate annuity of Cohen comes into existence after the purchaser agrees to make his purchase (column 2, lines 1-8). Cohen teaches that the annuity is ultimately purchased through the intermediation of an independent escrow agent after a series of transfers of financial data and calculations take place (column 1, lines 40-59). Cohen thus involves a system in which the purchaser of goods or services becomes the beneficiary of an annuity.

In sharp contrast to Cohen, the present invention describes repayment of a loan owed by a merchant. Cohen does not teach or suggest anything about loan repayment by a merchant. Amended claim 1 recites, in part, "outstanding loan amount owed by the merchant." Amended claim 10 recites, in part, "a merchant ... has an outstanding loan to a lender."

Furthermore, the loan recited in the amended claims differs from the annuity in Cohen. For example, the claims recite an "outstanding" loan, whereas the annuity of Cohen only comes into existence after the purchase. The existence of the loan in the present invention is independent of and unrelated to the consummation of any particular purchase, while the existence of the annuity in Cohen depends entirely on the consummation of the purchase. Also, in the present invention, the automated repayment of a loan amount is for the benefit of the merchant. The purchaser gains no additional benefit from the present invention. In contrast, the

primary financial beneficiary in Cohen is the purchaser who gains the right to receive an annuity, while the vendor has no direct financial interest in the annuity.

Even if the annuity of Cohen is replaced with an outstanding loan, as suggested in the Office Action, the "modified" Cohen would not result in Applicant's claimed invention, because the loan repayment would still be for the benefit of the purchaser. "The proposed modification cannot render the prior art unsatisfactory for its intended purpose." *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Also, "[t]he proposed modification cannot change the principle operation of a reference." *In re Ratti*, 270 F.2d 810 (CCPA 1959). *See also* MPEP § 2143.01. Cohen describes at column 1, lines 53-59 and at column 2, lines 29-35 that the purchaser, and not the vendor, supplies the funds used to pay for the annuity, and is the beneficiary of the annuity. Applicant's claims recite a loan repayment on behalf of and for the benefit of the merchant, and not on behalf of or for the benefit of the purchaser. To modify Cohen in an attempt to arrive at the claimed invention would fundamentally change Cohen. Cohen would no longer be a purchasing system with a rebate feature.

Cohen further describes a marketing program designed to reward customers with rebates to motivate subscriber-purchasers to patronize the shops of vendors associated with the marketing program to the exclusion of other vendors' shops (column 4, lines 7-10 of Cohen). According to Cohen, vendors join a pool of vendors that offer goods and services at wholesale prices to the operator of the marketing program (column 4, lines 1-4). Subscriber-purchasers have access to the goods and services of the vendors in the pool and can order those goods and services at retail prices through a purchasing center (column 3, lines 40-44). A price differential exists between the wholesale price the operator of the marketing program paid for the goods and

services and the retail price offered to the subscriber-purchasers for the goods and services (column 4, lines 4-6), and this differential covers all of the operator's fees as well as the rebates for the subscriber-purchasers. The rebate is sent to an insurance company that maintains individual annuity accounts for each of the subscriber-purchasers (column 4, lines 17-29). The rebate is paid to the subscriber-purchaser via the annuity account 20 years into the future (column 3, lines 22-26).

Although the Cohen system allows subscriber-purchasers to purchase goods with credit cards, Cohen does not describe the use of a merchant processor to direct the "rebate" to the insurance company or to direct any extra amount anywhere. Cohen thus is very different from the invention recited in pending independent claims 1 and 10.

Applicant respectfully submits that neither the reference cited by the Examiner (i.e. Cohen) nor the Examiner's Official Notice provides any suggestion to carry out the Applicant's claimed invention as is required for a proper rejection of the claimed invention under 35 U.S.C. § 103(a). Because the Examiner's Official Notice fails to add anything to Cohen, the combination of the two also fails to provide any suggestion to carry out Applicant's claimed invention.

The Examiner has failed to present a convincing line of reasoning as to why the artisan would have found the claimed invenion to have been obvious in light of the teachings of Cohen. A rejection under 35 U.S.C. § 103 cannot be based on a conclusory assertion that, had the skilled artisan simply "followed the 'common practice'" in the art, he or she would have developed the claimed invention. *In re Deminski*, 796 F.2d 436, 443, 230 USPQ 313, 316 (Fed. Cir. 1986). Likewise, a mere assertion that the modifications of the prior art necessary to meet the claimed invention were separately known to one skilled in the art at the time the invention was made is

insufficient to support a finding of obviousness. *See Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). In addition, a broad, conclusory statement that the combination would have been obvious based on knowledge generally available to a skilled artisan is insufficient to sustain a finding of *prima facie* obviousness. *See id. See also, Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (requiring that the Examiner "present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references") (emphasis added). At a minimum, the Examiner must provide evidence that the legal determination of prima facie obviousness is "more probable than not." MPEP § 2142.

In the present case, Applicant submits that no evidence has been presented that a skilled artisan would have been motivated to develop the automated loan repayment systems and methods of the present invention. Applicant submits that the Examiner's rejection represents nothing more than classical hindsight reconstruction of a prior art reference based upon the teachings of Applicant's disclosure. The Examiner has failed to introduce any evidence with respect to the scope and content of Cohen, or what the level of ordinary skill in the art is. The Examiner has merely stated "Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 . . . ," and has repeated independent claim 1 with reference to Cohen; however, the passages cited from Cohen do not teach the recited claim limitations and additional comments by the Examiner do not set out why Cohen would provide a skilled artisan a reasonable expectation of success of making and using the claimed invention.

Further still, Cohen is not pertinent or analogous to the claimed invention. Cohen is not within the same field of endeavor as the claimed invention and is not pertinent to the problem(s)

solved by the claimed invention. As stated above, Cohen is directed to a purchasing system with a rebate feature, and the claimed invention describes automated repayment of a loan owed by a merchant. Cohen is strictly a marketing tool and it has no disclosure relating to loan repayment and does not recognize the problems solved by the claimed invention. Therefore, Applicant submits that a skilled artisan would not have looked to the teachings of Cohen, and if they had, would not find a reasonable expectation of success of making and using the claimed invention. As such, the rejection is procedurally improper.

A determination of obviousness requires that the prior art would have suggested to one of ordinary skill in the art that the claimed subject matter should be carried out and would have a reasonable likelihood of success. Both the suggestion and the expectation of success must be found in the prior art, not in Applicant's disclosure. *See, In re Dow Chemical Company*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). The Federal Circuit has also held that to establish *prima facie* obviousness based on a combination of references, the Patent Office must show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the reference." *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (emphasis added). *See also* MPEP § 2143.01. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *Id at 1600.* Rather, there must be some teaching or suggestion in the references to support their use in the particular claimed combination. *See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp.*, 859 F.2d 878, 887 (Fed. Cir. 1988).

The Federal Circuit in *In re Dembiczak* emphasized "[o]ur case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999)(emphasis added). While the motivation to combine two references may come from a variety of sources, the "range of sources available . . . does not diminish the requirement for actual evidence. That is, the showing must be clear and particular." *Id.* Applicant respectfully suggests that the Examiner has not presented any actual evidence for the motivation to combine Cohen and Hilt, and in fact, relied on an impermissible hindsight reconstruction of the claims of the present case.

Applicant respectfully submits that there is no objective teaching in Cohen or Hilt which would have motivated a skilled artisan to combine the teachings of the applied references in the manner suggested by the Office Action. In addition, Applicant respectfully submits that there is no objective evidence of record that, based on generally available knowledge at the time the invention was made, a skilled artisan would have been motivated to make such a combination. As such, the Examiner's rejection of claims 1-6, 8-15, and 17-19 over Cohen and claims 7 and 16 over Cohen in view of Hilt is procedurally improper. Applicant therefore requests that these rejections be reversed.

2. The Claimed Invention Is Patentable Under 35 U.S.C. §103(a) Over Cohen.

Claims 1-6, 8-15, and 17-19 are rejected under 35 U.S.C. Section 103(a) over U.S. Patent No. 4,750,199 to Cohen (located at Appendix C and hereinafter "Cohen"). Applicant respectfully requests that the final rejection of claims 1-6, 8-15, and 17-19 under 35 U.S.C. § 103(a) be reversed, because the Examiner failed to cite any references that teach or suggest all

of the claim limitations of claims 1-6, 8-15, and 17-19. Therefore, the Examiner has failed to establish a prima facie case of obviousness, and this rejection under 35 U.S.C. § 103(a) should not be maintained.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 706.02(j).

In the final rejection of claims 1-6, 8-15, and 17-19 under 35 U.S.C. § 103(a), the Examiner stated that

> "Cohen discloses a system and method for purchase and transaction processing comprising: a. Accepting a customer identification at a merchant (purchasing center) and forwarding payment information to a merchant processor (escrow agent)(col 3, lines 58-61; col 5, Table I; and col 7, lines 50-51; b. Authorizing and settling the payment by the merchant processor (escrow agent)(col 6, lines 34-43) and forwarding a portion of the payment to a loan repayment receiver (Cohen forwards a portion of the payment to a "future benefit guarantor" or "an insurance company" (col 3, lines 4-9 and 31-38, and col 4, lines 17-21). See Official Notice below)"

Applicant respectfully submits that Cohen does not disclose a merchant processor, and that the Examiner has incorrectly equated the escrow agent of Cohen with the merchant processor of the present application.

Cohen describes a rebate system, whereby subscriber-purchasers receive a rebate for purchasing goods and services through a closed network of vendors. Cohen says nothing at all about utilizing a merchant processor to forward at least a portion of a customer's payment (such as a Visa credit card payment) to a loan repayment receiver as repayment of at least a portion of an outstanding loan that the merchant has with a lender. At most, Cohen describes using a merchant processor in the conventional manner to authorize and settle card payment transactions. Nowhere does Cohen even hint at modifying the merchant processor system to allow even a portion of what would normally go to the merchant to instead go to some other entity. Cohen certainly does not teach or suggest all of the claim limitations of independent claims 1 and 10, as required to establish a prima facie case of obviousness. Specifically, Cohen does not teach or suggest anything about loan repayment by a merchant via card payment transactions processed by a merchant processor.

The "escrow agent" described by Cohen "pays the insurance company a premium for an aggregate annuity policy and then pays the vendor for the wholesale price for the selected good or service. . . . The escrow agent also pays the sales tax due any taxing authorities for the purchase of the selected goods or services, pays credit card transaction fees and other miscellaneous fees such as administrative expenses by the operator of the purchasing center." Column 4, lines 18-29. The escrow agent of Cohen does not process credit card transactions such as a conventional merchant processor does. Generally, a conventional merchant processor acquires merchant transactions. Acquiring merchant transactions includes; for example, receiving payment information from a merchant or on behalf of a merchant, obtaining authorization for the payment from a card issuer, sending the authorization to the merchant, and submitting payment

information to the card issuer and getting paid by the card issuer, and paying the merchant. Nowhere in Cohen is it taught or suggested that the escrow agent performs these functions. In particular, the escrow agent of Cohen does not obtain payment authorization from the card issuer, does not relay authorization to the merchant, and does not submit payment information to the card issuer.

Furthermore, with regard to Cohen's use of a merchant processor in a conventional manner to authorize and settle card payment transactions, Applicant submits that Cohen at best merely alludes to the traditional use of a merchant processor to facilitate card purchase transactions. Cohen seems to indicate that a subscriber-purchaser can pay for a product with a credit card, and that any such card purchase must first be cleared so that the funds are then available to pass on and be used in the rebate system. (See Cohen at column 3, line 65, column 4, lines 26-27, and column 6, lines 32-35). This, however, is nothing more than a conventional use of a merchant processor, and virtually all of Cohen is focused on describing the rebate system which has absolutely nothing to do with a merchant processor. In sharp contrast to Cohen, the claimed invention is directed to using a merchant processor in a new and modified way.

Further to the final rejection of claims 1-6, 8-15, and 17-19 under 35 U.S.C. § 103(a), the Examiner took Official Notice that

> it is old and well known within the finance art that automatic deductions can be made to pay outstanding debts, such as loans, mortgages, insurance, etc. Numerous automatic deductions are also made from transactions to cover sales tax, credit card transaction charges, etc. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made that the portion of the transaction that Cohen was transferring to the insurance company could be transferred to a loan company, a bank, a mortgage company, or any other account which the vendor desired. . . . One would have been motivated to transfer

> a portion of the transaction to a loan repayment receiver in view of Cohen disclosure of transferring a portion to an insurance company . . . .

Applicant respectfully submits that the Examiner does not seem to grasp the nature of the claimed invention. Specifically, Applicant's claimed invention uses a merchant processor in a new and modified way. The Examiner's Official Notice refers to the broad concept of automatic payments; however, the Official Notice makes no mention of the use of a merchant processor, in particular a modified merchant processor to facilitate automatic payments. As stated above, a "merchant processor" according to the invention is described in the originally-filed application, and this description/definition should be used when interpreting and evaluating the claims. Merely taking "official notice" of a broad concept does not establish a prima facie case of obviousness. *See generally, In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999) A proper rejection under 35 U.S.C. § 103 requires that the prior art reference must teach or suggest all the claim limitations.

Applicant respectfully submits that neither the reference cited by the Examiner (i.e. Cohen) nor the Examiner's Official Notice provides a specific suggestion to carry out the Applicant's claimed invention as is required for a proper rejection of the claimed invention under 35 U.S.C. § 103(a). Indeed, as discussed above, Cohen describes a rebate system, whereby subscriber-purchasers receive a rebate for purchasing goods and services through a closed network of vendors. In sharp contrast, the claimed invention involves modifying an existing merchant processor system to allow repayment of a loan by a merchant via the processing by the modified merchant processor system of customers' card payments, which is not taught or suggested by

Cohen, either explicitly or implicitly. In addition, the Examiner's Official Notice does not disclose or suggest the claimed invention and does not remedy the deficiencies of Cohen.

Therefore, Applicant respectfully submits that the Examiner has failed to establish a prima facie case of obviousness, because the cited reference fails to teach or suggest every claim limitation of claims 1-6, 8-15, and 17-19. In addition, Applicant respectfully submits that independent claims 1 and 10 are not obvious under 35 U.S.C. §103(a) in view of Cohen, and that the claimed invention is separately patentable over Cohen. Further, rejected claims 2-6, 8, 9, 11-15, and 17-19 depend from independent claims 1 and 10, respectively, and are therefore also separately patentable over Cohen. Applicant therefore requests that this rejection be reversed.

3. Claims 7 And 16 Are Patentable Under 35 U.S.C. §103(a) Over Cohen in View Hilt

Claims 7 and 16 are rejected under 35 U.S.C. §103(a) as unpatentable under 35 U.S.C. §103(a) over Cohen in view of U.S. Patent No. 5,465,206 to Hilt et al. (located at Appendix D and hereinafter "Hilt"). Applicant respectfully requests that the final rejection of claims 7 and 16 under 35 U.S.C. § 103(a) be reversed, because the Examiner failed to cite any references that, alone or in combination, teach or suggest all of the claim limitations of claims 7 and 16. Therefore, the Examiner has failed to establish a prima facie case of obviousness, and this rejection under 35 U.S.C. § 103(a) should not be maintained.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The

teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 706.02(j).

Moreover, the initial burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (BPAI 1985). MPEP § 706.02(j).

The Examiner states

> Cohen discloses a system and method for automated loan repayment as discussed in Claims 1 and 10 above, but does not explicitly disclose electronically accepting the customer identifier. Hilt discloses a similar system and method for electronically paying bills by the customer entering the information "manually, via paper, at an ATM, or via a PC, telephone keypad, screen telephone or personal digital assistant" (col 11, lines 52-54).

The Examiner has again merely asserted that Cohen discloses a system and method for automated loan payment; however, as discussed in Issue 2, Cohen fails to teach or suggest all of the limitations of independent claims 1 and 10. Therefore, rejected claims 7 and 16, which depend from independent claims 1 and 10, respectively, are also separately patentable over Cohen. The addition of Hilt adds nothing to Cohen and fails to remedy the deficiencies of Cohen.

Hilt describes an electronic bill payment system, and further describes reducing or eliminating "exception items." At column 1, lines 51-59, Hilt indicates that an exception item is a payment which, for some reason, cannot be processed according to the highly automated procedures put in place by the biller to quickly process remittances. Exception items include checks received without payment coupons, payment coupons received without checks, checks for amounts different than the amounts shown on the corresponding coupons, multiple payment coupons received in an envelope with a single check." Hilt fails to supply what is absent from Cohen, and thus any combination of Cohen and Hilt cannot and does not teach or suggest Applicant's claimed subject matter. Specifically, Hilt does not teach or suggest anything about loan repayment by a merchant via a computerized merchant processor.

As stated by the Examiner, Hilt describes a system for electronically paying bills by the customer entering customer information "manually, via paper, at an ATM, or via a PC, telephone keypad, screen telephone or personal digital assistant" (column 11, lines 51-54 of Hilt). Hilt describes how a credit card number gets into the system electronically. Hilt does not, however, have anything to do with the subject matter of pending independent claims 1 and 10. Again, Hilt adds nothing to Cohen that would have made Applicant's invention unpatentable, and Applicant thus submits that all pending claims are patentable over Cohen and Hilt, whether taken alone or in combination.

Furthermore, Applicant submits that the claimed subject matter, taken as a whole, must be considered when evaluating the patentability of an invention under 35 U.S.C. §103(a). *Hartness International, Inc. v. Simplimatic Engineering Co.*, 819 F.2d 1100, 1108, 2 U.S.P.Q.2d 1826, 1832 (Fed. Cir. 1987). In addition, Applicant submits that the consistent criteria for the

determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the claimed subject matter should be carried out and would have a reasonable likelihood of success. Both the suggestion and the expectation of success must be founded in the prior art, not in Applicant's disclosure. *In re Dow Chemical Company*, 5 U.S.P.Q.2d 1529, 1530 (Fed. Cir. 1988).

Applicant also submits that in order for a combination of references to render an invention obvious, it must be obvious that their teachings can be combined. That is, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive in the art supporting the combination. *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability-the essence of hindsight. *In re.Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999).

The system described in Cohen is a purchasing system with a rebate feature. Hilt describes an electronic bill paying system. Clearly, Cohen and Hilt describe distinctly different inventions. Essentially, Cohen is a marketing tool that can be used to build a repeat customer base. Hilt is essentially an efficient system for paying bills electronically. There is nothing in either reference, considered in their entirety, to suggest the desirability of loan repayment by a merchant via card payment transactions processed by a merchant processor, as claimed by Applicant. The "fact that references can be combined or modified is not sufficient to establish prima facie obviousness" (MPEP 2100-110, col. 1). "The mere fact that references can [emphasis in original] be combined or modified does not render the resultant combination obvious unless the prior art also suggests

the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)," and there must be a "suggestion or motivation in the reference" to make the combination. (MPEP 2100-110, col. 1).

Applicant submits, for the reasons set forth above, that nothing in either reference suggests their combination, and that even if the applied references were combined in the manner suggested by the Examiner, Applicant submits that the applied references fail to teach or suggest the claimed invention, taken as a whole.

Therefore, Applicant respectfully submits that claims 7 and 16 are patentable under 35 U.S.C. § 103(a) over Cohen in view of Hilt, and that these claims are also separately patentable over Cohen. Applicant requests that this rejection be reversed.

4. The Claimed Invention Is Not Unpatentable Under Any Other Possible Bases for Rejections

Applicant believes that the foregoing arguments address each of the pending rejections of the pending claims. In particular, the present Brief addresses each of the rejections made in the Final Office Action. However, if the Examiner regards any of other rejections as currently pending, Applicant requests that any and all such rejections be raised in the Examiner's Answer so that Applicant has an opportunity to respond.

CONCLUSION

For the reasons given above, it is respectfully urged that the final rejection be reversed and the application be passed to issue with claims 1-19.

A Petition and Fee for the filing of this Brief on Appeal, as well as a Petition and Fee for a five-month Extension of Time for Response, is submitted herewith. Applicants believe that no other fees are necessitated by the present filing. However, in the event that any additional fees

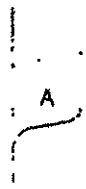
are due, the Commissioner is hereby authorized to charge any such fees to Attorney's Deposit Account No. 20-0531.

Respectfully submitted,

Date: June 7, 2000
Reg. No. 42,545

John V. Forcier
Attorney for Applicants
Testa, Hurwitz, & Thibeault
High Street Tower
125 High Street
Boston, Massachusetts 02110

Tel. No. (617) 248-7675
Fax: (617) 248-7100
FORCIER4750/2.973505-1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Appendix A

1. (Twice Amended) A method for automated loan repayment, comprising:

at a merchant, accepting a customer identifier as payment from the customer and electronically forwarding information related to the payment to a computerized merchant processor;

at the computerized merchant processor, acquiring the information related to the payment from the merchant, authorizing and settling the payment, and forwarding at least a portion of the payment to a computerized loan repayment receiver as repayment of at least a portion of an outstanding loan amount owed by the merchant; and

at the computerized loan repayment receiver, receiving the portion of the payment forwarded by the computerized merchant processor and applying that portion to the outstanding loan amount owed by the merchant to reduce that outstanding loan amount.

2. The method of claim 1 wherein the accepting step comprises accepting a credit card number as the customer identifier.

3. The method of claim 1 wherein the accepting step comprises accepting a debit card number as the customer identifier.

4. The method of claim 1 wherein the accepting step comprises accepting a smart card including the customer identifier.

5. The method of claim 1 wherein the accepting step comprises accepting a charge card number as the customer identifier.

6. The method of claim 1 wherein the accepting step comprises accepting the customer identifier at a merchant location.

7. The method of claim 1 wherein the accepting step comprises electronically accepting

the customer identifier.

8. The method of claim 1 wherein the steps performed at the merchant processor further comprise accumulating the payments until a predetermined amount is reached and then forwarding at least a portion of the accumulated payments to the loan repayment receiver.

9. The method of claim 1 wherein the steps performed at the merchant processor comprise periodically forwarding at least a portion of the payment to the loan repayment receiver.

10. (Twice Amended) A system for automated loan repayment, comprising:

at a merchant, means for accepting a customer identifier as payment from the customer and for electronically forwarding information related to the payment to a computerized merchant processor, wherein the merchant associated with the payment has an outstanding loan to a lender; and

at the computerized merchant processor, means for receiving the information related to the payment from the merchant, means for authorizing and settling the payment, and means for forwarding to the lender a loan payment associated with the payment.

11. The system of claim 10 wherein the accepting means comprises means for accepting a credit card number as the customer identifier.

12. The system of claim 10 wherein the accepting means comprises means for accepting a debit card number as the customer identifier.

13. The system of claim 10 wherein the accepting means comprises means for accepting a smart card including the customer identifier.

14. The system of claim 10 wherein the accepting means comprises means for accepting a charge card number as the customer identifier.

15. The system of claim 10 wherein the accepting means comprises means for accepting the customer identifier at a merchant location.

16. The system of claim 10 wherein the accepting means comprises means for electronically accepting the customer identifier.

17. The system of claim 10 wherein the means at the merchant processor further comprise means for accumulating the payments until a predetermined amount is reached and means for forwarding at least a portion of the accumulated payments to the lender.

18. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for periodically forwarding at least a portion of the payment to the lender.

19. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for forwarding to the lender an amount that is a percentage of the payment.

Appendix A

1. (Twice Amended) A method for automated loan repayment, comprising:

at a merchant, accepting a customer identifier as payment from the customer and electronically forwarding information related to the payment to a computerized merchant processor;

at the computerized merchant processor, acquiring the information related to the payment from the merchant, authorizing and settling the payment, and forwarding at least a portion of the payment to a computerized loan repayment receiver as repayment of at least a portion of an outstanding loan amount owed by the merchant; and

at the computerized loan repayment receiver, receiving the portion of the payment forwarded by the computerized merchant processor and applying that portion to the outstanding loan amount owed by the merchant to reduce that outstanding loan amount.

2. The method of claim 1 wherein the accepting step comprises accepting a credit card number as the customer identifier.

3. The method of claim 1 wherein the accepting step comprises accepting a debit card number as the customer identifier.

4. The method of claim 1 wherein the accepting step comprises accepting a smart card including the customer identifier.

5. The method of claim 1 wherein the accepting step comprises accepting a charge card number as the customer identifier.

6. The method of claim 1 wherein the accepting step comprises accepting the customer identifier at a merchant location.

7. The method of claim 1 wherein the accepting step comprises electronically accepting

the customer identifier.

8. The method of claim 1 wherein the steps performed at the merchant processor further comprise accumulating the payments until a predetermined amount is reached and then forwarding at least a portion of the accumulated payments to the loan repayment receiver.

9. The method of claim 1 wherein the steps performed at the merchant processor comprise periodically forwarding at least a portion of the payment to the loan repayment receiver.

10. (Twice Amended) A system for automated loan repayment, comprising:

at a merchant, means for accepting a customer identifier as payment from the customer and for electronically forwarding information related to the payment to a computerized merchant processor, wherein the [a] merchant associated with the payment has an outstanding loan to a lender; and

at the computerized merchant processor, means for receiving the information related to the payment from the merchant, means for authorizing and settling the payment, and means for forwarding to the lender a loan payment associated with the payment.

11. The system of claim 10 wherein the accepting means comprises means for accepting a credit card number as the customer identifier.

12. The system of claim 10 wherein the accepting means comprises means for accepting a debit card number as the customer identifier.

13. The system of claim 10 wherein the accepting means comprises means for accepting a smart card including the customer identifier.

14. The system of claim 10 wherein the accepting means comprises means for accepting a charge card number as the customer identifier.

15. The system of claim 10 wherein the accepting means comprises means for accepting the customer identifier at a merchant location.

16. The system of claim 10 wherein the accepting means comprises means for electronically accepting the customer identifier.

17. The system of claim 10 wherein the means at the merchant processor further comprise means for accumulating the payments until a predetermined amount is reached and means for forwarding at least a portion of the accumulated payments to the lender.

18. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for periodically forwarding at least a portion of the payment to the lender.

19. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for forwarding to the lender an amount that is a percentage of the payment.

B

Express Mail No. EM494319692US

PATENT
Atty. Docket No. JHN-001 (4750/2)

AUTOMATED LOAN REPAYMENT

Technical Field

This invention relates to systems and processes for automated repayment of a loan by a merchant borrower via fees levied through an entity that processes payment transactions for the merchant.

Background Information

Card (e.g., credit, debit, charge, smart, etc.) transactions generally involve at least merchants, merchant processors, issuers, and cardholders. Such transactions include authorization, clearing, and settlement processes, and may include the use of a system such as the VisaNet or Cirrus system to authorize, clear, and settle the card payment.

Loan repayment generally is performed by a borrower sending periodic payments directly to the lender by post or by electronic funds transfer through the banking system.

Summary of the Invention

It is an object of the invention to provide an automated loan repayment system and process based on fees levied on payment transactions such as those involving unique identifying account numbers (e.g., credit, debit, charge, payment, smart, etc. card numbers).

The invention utilizes a merchant processor in the loan repayment process. The merchant processor may be, for example, a third party entity (i.e., an entity other than the borrower or the lender), the same entity as the lender, or an entity affiliated in some way with the lender. As an example, with some credit cards, the merchant processor can be a third party. As another example, with some cards such as the American Express charge card, the merchant processor can be the same as (or at least closely affiliated with) the lender. In general, a "merchant processor" is any entity that acquires merchant transactions such as a bank or other financial institution, or an organization dedicated to acquiring and processing merchant transactions. Acquiring merchant transactions generally means receiving payment information from a merchant or on

behalf of a merchant, obtaining authorization for the payment from the card issuer, sending that authorization to the merchant, and then completing the transaction by paying the merchant, submitting the payment, and getting paid by the issuer. For this service, the merchant processor typically levies a fee on the merchant that is a percentage of the amount of the payment transaction. In general, the payment information forwarded to the merchant processor relates to a customer identifier submitted to the merchant as payment for some good(s) and/or service(s), and that identifier can be the account number associated with, for example, a debit card, a smart card, a credit card (e.g., a Visa or MasterCard card), a charge card (e.g., an American Express card), etc.

The invention relates to systems and processes for automated repayment of a loan made by a lender to a merchant. The systems and processes of the invention utilize consumer payment transactions with the merchant to allow the merchant to reduce the outstanding loan amount. Typically, a percentage of a consumer's payment to the merchant (e.g., by credit card) is used to pay down the merchant's outstanding loan. In one embodiment of the present invention, a merchant that has borrowed a loan amount from the lender accepts a customer-identifying account number (e.g., a credit, charge, payment, or debit card number) as payment from the customer and information related to the payment is forwarded to a merchant processor. Acceptance of this type of payment from the customer can be done, for example, at a merchant location (e.g., a retail establishment), over the telephone, or electronically via, for example, the World Wide Web by the merchant or on behalf of the merchant. The merchant processor then acquires the information related to the payment transaction, processes that information, and forwards at least a portion of the transaction amount to the lender as repayment of at least a portion of the outstanding loan amount owed by the merchant. The loan payments alternatively may be accumulated until a predetermined amount is reached, and then at least a portion of the accumulated payments is forwarded to the lender (or its designee). In another embodiment, the merchant processor may periodically forward at least a portion of the payment to the lender or designee. For example, the merchant processor may forward payment amounts every month, or based on an amount such as after each one thousand dollars ($1000) worth of transactions. The lender or designee (e.g., a bank or other lending institution, or an entity collecting payments on behalf of the lender) receives the portion of the payment forwarded by the merchant processor

and applies that amount to the outstanding loan amount owed by the merchant to reduce that outstanding loan amount.

A system according to the invention automates repayment of a loan made by a lender to a merchant by utilizing payment transactions (e.g., credit, debit, charge, payment, smart, etc. card transactions) with the merchant. The system includes means for accepting a customer-identifying account number as payment from the customer and for forwarding information related to the payment to a merchant processor. In one embodiment, the merchant may use equipment provided by VeriFone Inc. of Redwood City, California, such as an electronic card swipe machine, to facilitate card transactions by customers. The merchant processor includes means for receiving the information related to the payment and means for forwarding a loan payment to the lender.

The invention thus automates the loan repayment process, and provides an easy and efficient mechanism by which merchants that accept customer-identifying account numbers (e.g., credit cards) as payment for good(s) and/or service(s) can repay loans. The borrowing merchants use one or more already-familiar payment transaction processing systems to make the payments required by the lender or the loan collecting entity. The invention makes loan repayment and collection simple and efficient for both the borrower and the lender.

The foregoing and other objects, aspects, features, and advantages of the invention will become more apparent from the following drawings, description, and claims.

Brief Description of the Drawings

In the drawings, like reference characters generally refer to the same parts throughout the different views. Also, the drawings are not necessarily to scale, emphasis instead generally being placed upon illustrating the principles of the invention.

FIGS. 1A and 1B are schematic illustrations of a payment transaction from authorization (FIG. 1A) to settlement (FIG. 1B).

FIG. 2 is a block diagram of a merchant processor making payment to both a merchant and a lender, in accordance with the invention.

FIG. 3A is a diagram of a merchant processor system according to the invention.

FIG. 3B is a diagram of a merchant location.

Description

Referring to FIGS. 1A and 1B, a purchase transaction (e.g., a credit card transaction) generally begins with a cardholder 10 providing a customer identifier (typically, a unique identifying account number such as that on a credit card such as a Visa or MasterCard card, a debit card, a smart card, a charge card such as an American Express card, etc.) to a merchant 20, as indicated by an arrow 12, for payment of goods and/or services purchased by the customer. The merchant can be any business that accepts such form of payment for the goods and/or services provided to customers by the business. The cardholder 10 might present the card to the merchant 20 in person, or the cardholder 10 might provide the card number to the merchant over the telephone or electronically by computer (e.g., via the World Wide Web, WWW). Also, the cardholder 10 might provide the card number to an entity acting on behalf of the merchant such as a WWW provider that sets up and maintains the merchant's Web page(s). However the customer identifier (e.g., card number) gets to the merchant or the merchant's agent, authorization must be obtained before the payment can be accepted and the purchase transaction completed.

Authorization, as shown in FIG. 1A, involves an authorization request going to a merchant processor 30, as indicated by an arrow 22. The request generally gets to the merchant processor 30 electronically by, for example, transmission through the telephone system and/or some other network (e.g., the Internet and/or an intranet). The merchant processor 30 (also known as an acquirer because it acquires merchant transactions) then routes the authorization request to a card issuer 50 via a network 40, as indicated by arrows 32 and 42. In some embodiments, the merchant processor 30, 300 is the bank of the merchant 20, and the card issuer 50 is the cardholder's bank. The routing generally is performed electronically in a manner mentioned above (i.e., via one or more public and/or private networks). The network 40 may be, for example, the VisaNet system. Other examples of the network 40 include debit card processing network systems (e.g., Cirrus), the American Express card network, and the Discover (Novus) card network. It may be possible to bypass the network 40 and send the authorization request directly from the merchant processor 30 to the card issuer 50. In some instances, the card issuer 50 also performs the function of acquiring merchant transactions (American Express is an example). Also, the merchant processor 30 and the card issuer 50 can be merged, and the

authorization request will then go only to the merchant processor 30 which itself then can approve or disapprove the request because the merchant processor 30 and the card issuer 50 are now the same entity. In the case where the network 40 is used and the card issuer 50 and the merchant processor 30 are separate (organizationally and/or physically) entities, the card issuer 50 receives the authorization request via the network 40 and either approves or disapproves the request. An example of when the card issuer 50 may disapprove the authorization request is when the cardholder 10 has reached the maximum limit on the card or if the card number has been fraudulently obtained. Assuming the request is approved, the card issuer 50 sends approval of the authorization to the merchant processor 30 via the network 40, as indicated by arrows 44 and 34. The merchant processor 30 then passes on the authorization approval to the merchant, as indicated by an arrow 24. With the approval, the second part of the card transaction can now occur. This return path (i.e., arrows 44, 34, and 24) also can be accomplished by electronic transmission through one or more private and/or public network systems. In general, all of the arrows in FIGS. 1A, 1B, and 2 represent electronic transmissions, except possibly for arrows 12, 22, 24, 26, 52, and 54 which may involve other types of transmission such as physical delivery (e.g., a card handed over by the cardholder/customer 10) or post (e.g., a bill sent to the cardholder 10 via the U.S. Postal Service or other carrier) or by telephone.

Referring to FIG. 1B, to complete the purchase transaction, the dollar amount of the customer's purchase is forwarded to the merchant processor 30 by the card issuer 50, as indicated by an arrow 26. The merchant processor 30 pays the merchant 20 some amount less than the amount submitted to the merchant processor 30. The merchant processor 30 typically charges a fee, often referred to as a discount rate, for processing the purchase transaction. For example, the customer's purchase may have been $100, and with a discount rate of 1.9%, the merchant 20 is paid $98.10 (i.e., $100 less the 1.9% discount rate) by the merchant processor 30. The merchant processor 30 submits the entire amount of the customer's purchase to the card issuer 50 via the network 40, as indicated by arrows 36 and 46. Again, the network 40 may be eliminated, and the merchant processor and card issuer functions may be contained in one entity. In the case where the network 40 is included and the merchant processor and card issuer functions are separate, the card issuer 50, via the network 40, pays the merchant processor 30 some amount less than the amount submitted to the card issuer 50 by the merchant processor 30, as indicated by arrows 48

and 38. This reduced amount reflects another fee levied on the transaction by the card issuer 50, often referred to as an interchange fee. The interchange fee is often part of the discount rate. The merchant processor 30 then in turn pays the merchant 20 (e.g., by forwarding payment to a bank having an account maintained by the merchant 20) some amount less than the customer's original purchase amount, as indicated by an arrow 28. For example, with an original customer purchase of $100, and with an interchange fee of 1.4%, the merchant processor 30 is paid $98.60 (i.e., $100 less the 1.4% interchange fee) by the card issuer 50. This amount is further reduced by the merchant processor's fee. Thus, in this $100 original customer purchase example, the merchant 20 is paid $98.10 by the merchant processor 30, the merchant processor 30 makes $0.50, and the card issuer makes $1.40. Stated another way, the merchant 20 pays 1.9% for the ability to offer customers the convenience of paying by card, and that 1.9% fee or surcharge is allocated to the merchant processor 30 (0.5%) and the card issuer (1.4%) for providing the merchant 20 with that ability.

The card issuer 50 bills the customer or cardholder 10 for the full amount of the original purchase (e.g., $100), and the cardholder 10 is responsible for paying that amount, plus any interest and other fees, in full or in installment payments. Also, when the network 40 is used, both the merchant processor 30 and the card issuer 50 generally pay a fee to the provider of the network 40. For example, in the case of VisaNet, the merchant processor might pay $0.069 to VisaNet as a card service fee, and the card issuer 50 might pay VisaNet $0.059 as a card service and transaction fee. These payments by the merchant processor 30 and the card issuer 50 to the provider of the network 40 reduce the amount made off of the surcharge (e.g., 1.9%) imposed on the merchant 20.

Having described the environment in which the invention operates with reference to FIGS. 1A and 1B, the automated loan repayment system and process according to the invention will now be described with reference to FIGS. 2, 3A, and 3B.

Referring to FIG. 2, a lender 60 makes a loan to the merchant 20, as indicated by an arrow 62. The merchant 20 then is required to pay back the full loan amount plus interest, and possibly fees. Currently, the merchant 20 typically pays the outstanding loan back in periodic installments (e.g., equal monthly payments over five years). The merchant 20 may make these payments to the lender 60 or to some other loan repayment receiver. In FIG. 2, the loan repayment receiver is

identified as the lender 60. In accordance with the invention, a purchase transaction occurs as indicated in FIG. 1B except that the final step where the merchant processor pays the merchant is altered. That is, the payment indicated by the arrow 28 is altered. The invention involves a merchant processor 300 designed to pay a portion of what would normally go to the merchant 20 to the lender 60 as repayment of at least a portion of the merchant's outstanding loan amount, as indicated by an arrow 29. The lender 60 then receives that portion of the payment forwarded by the merchant processor 300 and applies it to the merchant's outstanding loan amount to reduce that outstanding loan amount. The merchant processor 300 thus pays the merchant 20 some amount less than what the merchant 20 would receive in the arrangement of FIG. 1B, as indicated by an arrow 27 in FIG. 2. For example, carrying on with the example introduced above with reference to FIGS. 1A and 1B, instead of paying $98.10 to the merchant 20 on a $100 original card purchase, the merchant processor 300 might send $88.10 to the merchant 20 and the other $10.00 to the lender 60.

In accordance with the invention, there can be a number of variations on how and when the merchant processor 300 pays the lender 60. For example, the merchant processor 300 can accumulate the payments received from the card issuer 50 (via arrows 48 and 38) until a predetermined dollar amount is reached, and then the merchant processor 300 can forward at least a portion of the accumulated payments to the lender 60. Also, as another example, the merchant processor 300 can periodically forward payment to the lender 60, such as upon every other payment received from the card issuer 50.

Referring to FIG. 3A, the merchant processor 300 according to the invention typically includes at least a processor 302, memory 304, an input/output (I/O) device 306, a merchant accounts database 308, and a bus 310 or other means for allowing these components to communicate. The I/O module 306 allows the merchant processor 300 to communicate electronically with the other components (e.g., the merchant 20, the network 40, the card issuer 50 , and the lender 60) in the card transaction processing system shown in the drawings. The processor 302 and the memory 304 cooperate with each other and with the other components of the merchant processor 300 to perform all of the functionality described herein. In one embodiment, the merchant processor 300 executes appropriate software to perform all of the functionality described herein. In an alternative embodiment, some or all of the functionality

described herein can be accomplished with dedicated electronics hard-wired to perform the described functions. The merchant accounts database 308 can include information identifying all merchants 20 with which the merchant processor 300 is authorized to do business (e.g., at least a plurality of unique merchant code numbers), and it also can include information about which lender 60 is associated with each authorized merchant 20 and how (e.g., dollar amounts and frequency) payments are to be made to the lenders 60 by the merchant processor 300. The merchant processor 300 according to the invention can be an appropriately programmed computer such as a mainframe, minicomputer, PC, or Macintosh computer, or it can include a plurality of such computers cooperating to perform the functionality described herein. Similarly, the other components of the card transaction system (e.g., the merchant 20, the network 40, the card issuer 50, and the lender 60) according to the invention typically include one or more appropriately programmed computers for implementing the functionality described herein.

Referring to FIG. 3B, the merchant 20 typically includes at least one computer unit 312, such as a microprocessor and associated peripherals, that communicates over a bus 314 with a consumer data input device 316, a transaction data input device 318, memory 320, and an input/output (I/O) device 322. The consumer data input device 316 is located at the point-of-sale to a consumer of merchandise or services from the merchant. The device 316 can include a keyboard for use to enter a consumer's account number/identifier, or alternatively it can include a magnetic card reader for reading a magnetic stripe on a plastic card inserted into the reader. With such a magnetic stripe card, the stripe is encoded with the identifier (e.g., the customer's Visa credit card account number). When such a plastic card is used, the device 316 also may include a keyboard for entry of a personal identification number (PIN) for verifying against a code stored in or on the card. The transaction data input device 318 also is located at the point-of-sale, and it typically includes a keyboard or the like for use by, for example, a sales clerk to enter the dollar amount of the merchandise or service purchased by the customer and possibly other related information. The device 318 could include a cash register. In some embodiments, the devices 316 and 318 can share a single keyboard. The consumer and transaction data entered through the devices 316 and 318 may be temporarily stored in the memory 320. The memory 320 also may include merchant data along with software to direct operation of the computer 312. The merchant data typically will include at least a merchant code number to identify the merchant,

and merchant data also may include information indicating the time or location of the sale and/or the sales clerk involved in the purchase transaction, for example. The merchant 20 may have more than one point-of-sale locations and each such location can be equipped with consumer and transaction data input devices 316 and 318. Similarly, memory 320 and I/O devices 322 can be replicated at each point-of-sale location at the merchant 20. In one embodiment, only the devices 316 and 318 are replicated at the merchant 20 such that only one computer 312 is needed by each single merchant location. VeriFone Inc. of Redwood City, California, for example, provides such merchant-location equipment.

Referring now to both FIG. 3A and FIG. 3B, the merchant processor 300 and the merchant 20 can communicate through the I/O devices 306 and 322. These devices 306 and 322 can be modems, for example.

While only one merchant 20 and one lender 60 are shown in the drawings, it should be understood that in general a plurality of merchants 20 will interact with the merchant processor 300, and the merchant processor 300 could interact with one or more lenders 60, in accordance with the invention. The different merchants 20 generally will have varying outstanding loan amounts owed to one or more of the various lenders 60. The invention has been shown and described with reference to one merchant 20 and one lender 60 for simplicity and ease of understanding. Also, as stated previously, the merchant processor 300 and the card issuer 50 can be separate entities (as is generally the case with Visa card processing) or the same entity, or at least affiliated entities, (as is generally the case with American Express card processing).

Variations, modifications, and other implementations of what is described herein will occur to those of ordinary skill in the art without departing from the spirit and the scope of the invention as claimed. Accordingly, the invention is to be defined not by the preceding illustrative description but instead by the spirit and scope of the following claims.

What is claimed is:

Claims

1. A method for automated loan repayment, comprising:

accepting a customer identifier as payment from the customer and forwarding information related to the payment to a merchant processor;

at the merchant processor, acquiring the information related to the payment and forwarding at least a portion of the payment to a loan repayment receiver as repayment of at least a portion of an outstanding loan amount owed by the merchant; and

at the loan repayment receiver, receiving the portion of the payment forwarded by the merchant processor and applying that portion to the outstanding loan amount owed by the merchant to reduce that outstanding loan amount.

2. The method of claim 1 wherein the accepting step comprises accepting a credit card number as the customer identifier.

3. The method of claim 1 wherein the accepting step comprises accepting a debit card number as the customer identifier.

4. The method of claim 1 wherein the accepting step comprises accepting a smart card including the customer identifier.

5. The method of claim 1 wherein the accepting step comprises accepting a charge card number as the customer identifier.

6. The method of claim 1 wherein the accepting step comprises accepting the customer identifier at a merchant location.

7. The method of claim 1 wherein the accepting step comprises electronically accepting the customer identifier.

8. The method of claim 1 wherein the steps performed at the merchant processor further comprise accumulating the payments until a predetermined amount is reached and then forwarding at least a portion of the accumulated payments to the loan repayment receiver.

9. The method of claim 1 wherein the steps performed at the merchant processor comprise periodically forwarding at least a portion of the payment to the loan repayment receiver.

10. A system for automated loan repayment, comprising:

means for accepting a customer identifier as payment from the customer and for forwarding information related to the payment to a merchant processor, wherein a merchant associated with the payment has an outstanding loan to a lender; and

at the merchant processor, means for receiving the information related to the payment and means for forwarding to the lender a loan payment associated with the payment.

11. The system of claim 10 wherein the accepting means comprises means for accepting a credit card number as the customer identifier.

12. The system of claim 10 wherein the accepting means comprises means for accepting a debit card number as the customer identifier.

13. The system of claim 10 wherein the accepting means comprises means for accepting a smart card including the customer identifier.

14. The system of claim 10 wherein the accepting means comprises means for accepting a charge card number as the customer identifier.

15. The system of claim 10 wherein the accepting means comprises means for accepting the customer identifier at a merchant location.

16. The system of claim 10 wherein the accepting means comprises means for electronically accepting the customer identifier.

17. The system of claim 10 wherein the means at the merchant processor further comprise means for accumulating the payments until a predetermined amount is reached and means for forwarding at least a portion of the accumulated payments to the lender.

18. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for periodically forwarding at least a portion of the payment to the lender.

19. The system of claim 10 wherein the forwarding means at the merchant processor comprises means for forwarding to the lender an amount that is a percentage of the payment.

AUTOMATED LOAN REPAYMENT

Abstract of the Disclosure

Systems and methods for automated loan repayment involve utilizing consumer payment authorization, clearing, and settlement systems to allow a merchant to reduce an outstanding loan amount. After a customer identifier (e.g., a credit, debit, smart, charge, payment, etc. card account number) is accepted as payment from the customer, information related to the payment is forwarded to a merchant processor. The merchant processor acquires the information related to the payment, processes that information, and forwards at least a portion of the payment to a loan repayment receiver as repayment of at least a portion of the outstanding loan amount owed by the merchant. The loan repayment receiver receives the portion of the payment forwarded by the merchant processor and applies that portion to the outstanding loan amount owed by the merchant to reduce that outstanding loan amount.

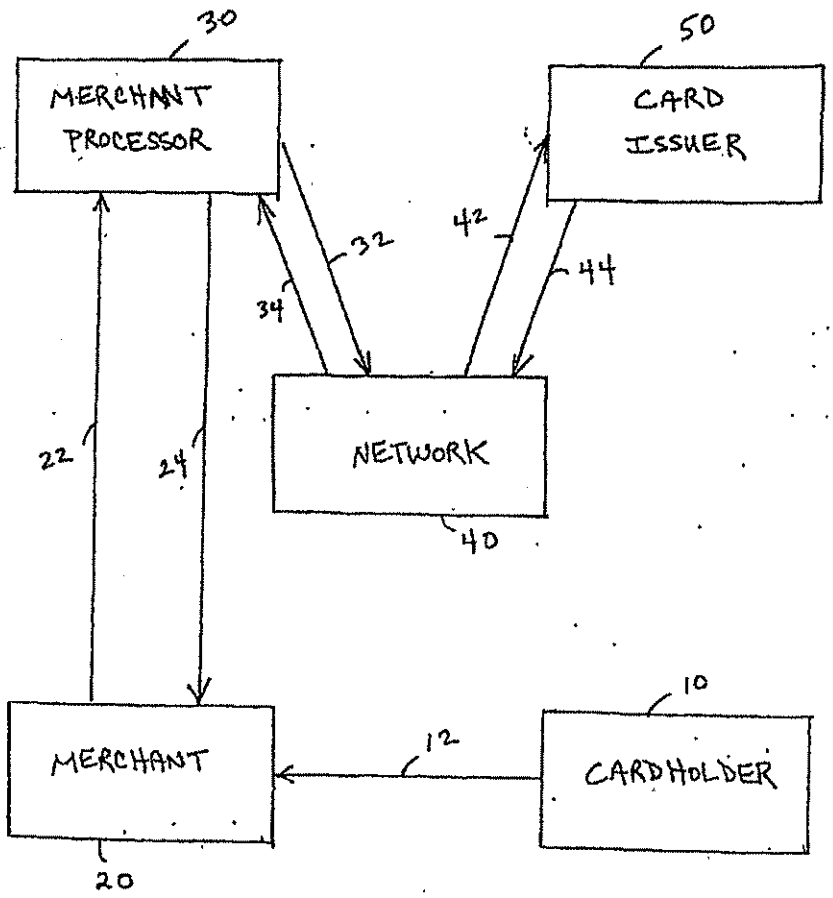
30
MERCHANT PROCESSOR
50
CARD ISSUER
32
34
42
44
NETWORK
40
22
24
MERCHANT
20
10
12
CARDHOLDER

FIG. 1A

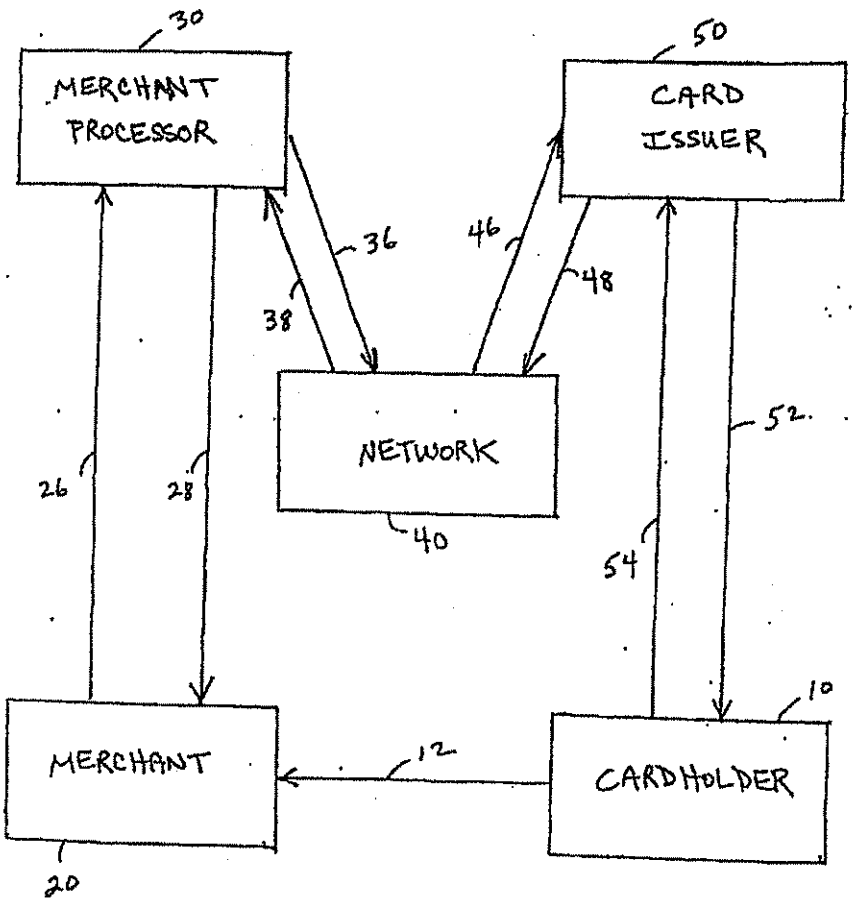
30
MERCHANT PROCESSOR
50
CARD ISSUER
36
46
38
48
NETWORK
40
52
26
28
54
10
MERCHANT
12
CARDHOLDER
20

FIG. 1B

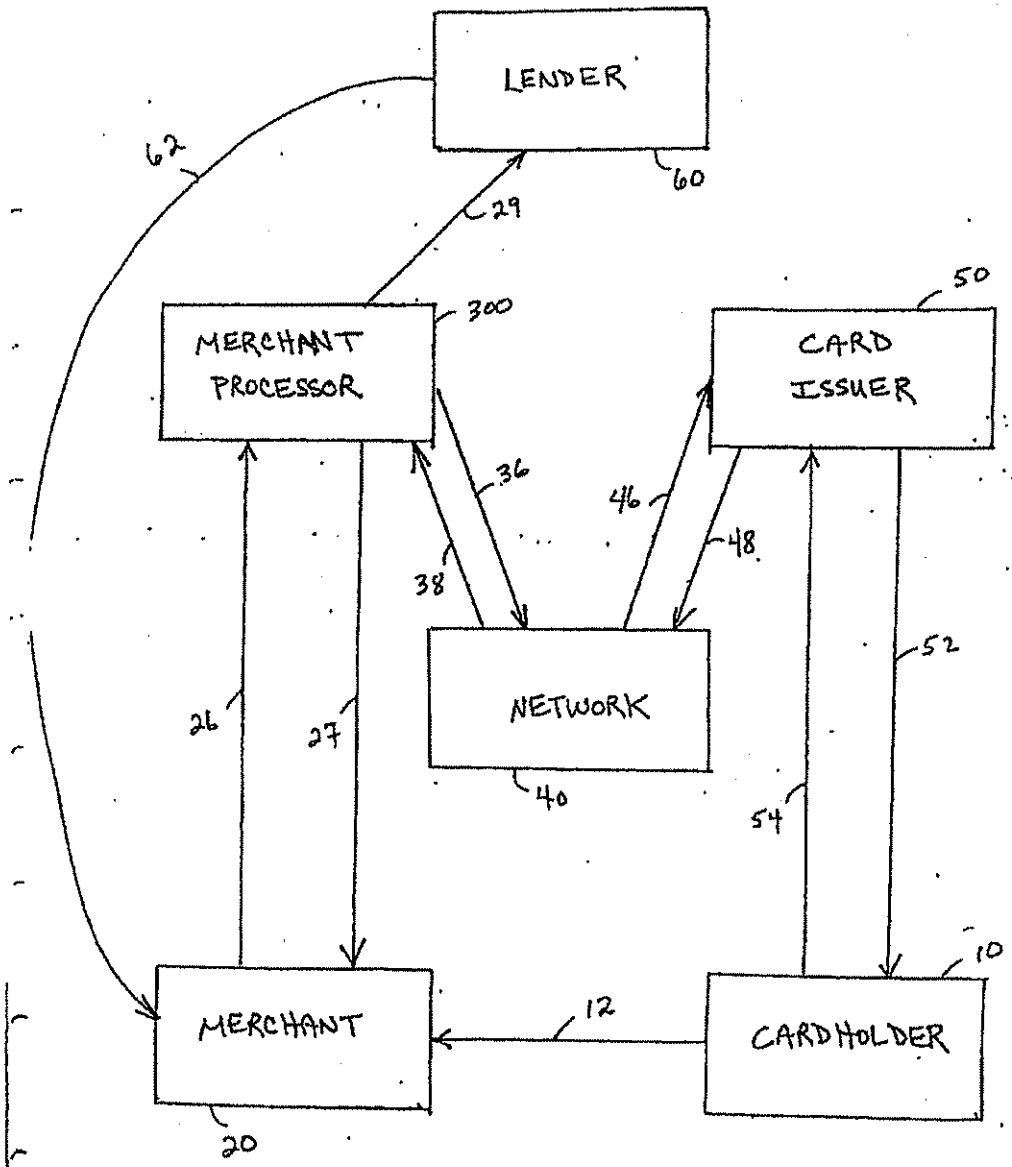
LENDER
60
62
29
MERCHANT PROCESSOR
300
CARD ISSUER
50
36
38
46
48
NETWORK
40
26
27
52
54
MERCHANT
20
12
CARDHOLDER
10

FIG. 2

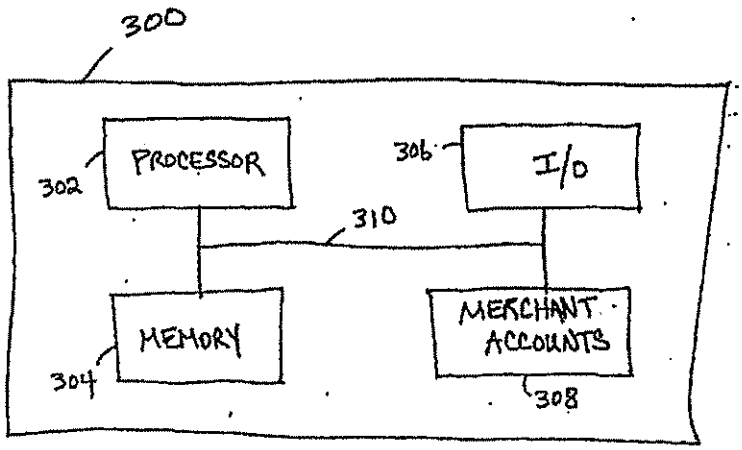
300
PROCESSOR
302
I/O
306
310
MEMORY
304
MERCHANT ACCOUNTS
308

FIG. 3A

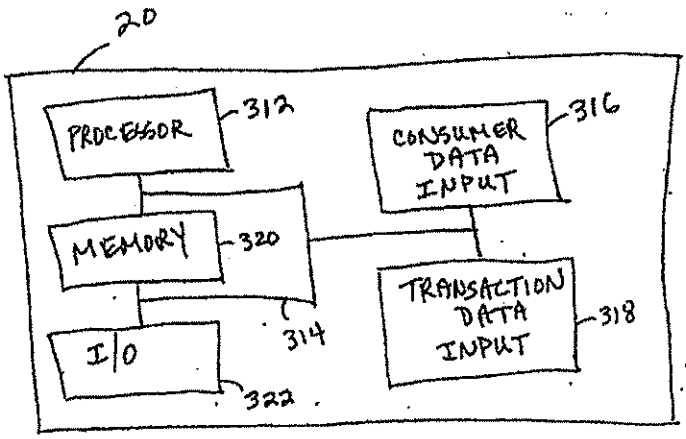
20
PROCESSOR
312
CONSUMER DATA INPUT
316
MEMORY
320
TRANSACTION DATA INPUT
318
I/O
314
322

FIG. 3B

C

United States Patent [19]

Cohen et al.

[11] **Patent Number: 4,750,119**

[45] **Date of Patent: Jun. 7, 1988**

[54] **PURCHASING SYSTEM WITH REBATE FEATURE**

[75] Inventors: Jeffery M. Cohen; Ira M. Robertson, both of Boca Raton, Fla.

[73] Assignee: Tradevest, Inc.

[21] Appl. No.: 917,894

[22] Filed: Oct. 10, 1986

[51] Int. Cl.[4] G06F 15/21; G06F 3/02

[52] U.S. Cl. 364/401; 364/408

[58] Field of Search 364/401, 406, 408

[56] **References Cited**

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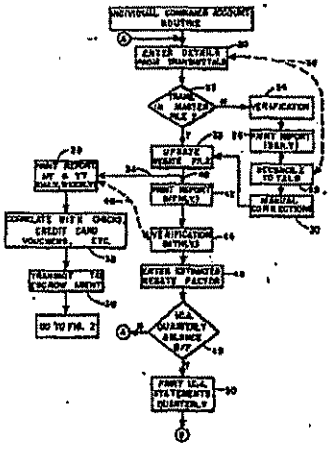
2728933 1/1979 Fed. Rep. of Germany 364/408

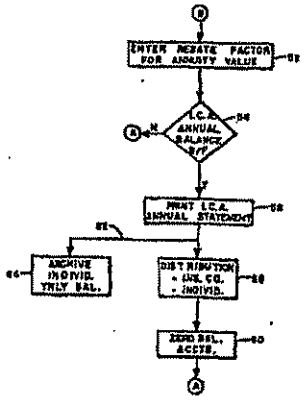
Primary Examiner—Charles E. Atkinson
Assistant Examiner—Gail Hayes
Attorney, Agent, or Firm—Robert C. Kain, Jr.; Michael C. Cesarano; J. Rodman Steele, Jr.

[57] **ABSTRACT**

The purchasing system with a rebate feature is utilized by subscriber-purchasers, vendors providing goods and services, a future benefit guarantor such as an insurance company selling annuity contracts and in some cases an escrow agent. The purchasing system allows for the input of purchase orders from the subscriber-purchasers for selected goods and services and correlates the transfer of funds from those purchaser-subscribers to the various vendors selling the selected goods. In one instance, the transfer occurs between the subscriber-purchasers and the escrow agent. The future benefit guarantor supplies a rebate factor which is input into the system. The system then computes and reports a rebate which is due in the future to each subscriber-purchaser from the future benefit guarantor. The rebate is based upon cost of the individually selected goods and services and the rebate factor. The system provides instructions to pay the vendors for the selected goods and services and to pay the future rebate guarantor a premium representing the purchase price of the future guaranteed rebates. Preferably, the premium is paid on a daily basis to the guarantor and a group annuity contract is funded until the end of the fiscal year. At that time, the system further instructs the guarantor to issue individual future guaranteed rebate contracts to each purchaser-subscriber based upon the total rebates or total purchases over the accounting period.

6 Claims, 4 Drawing Sheets





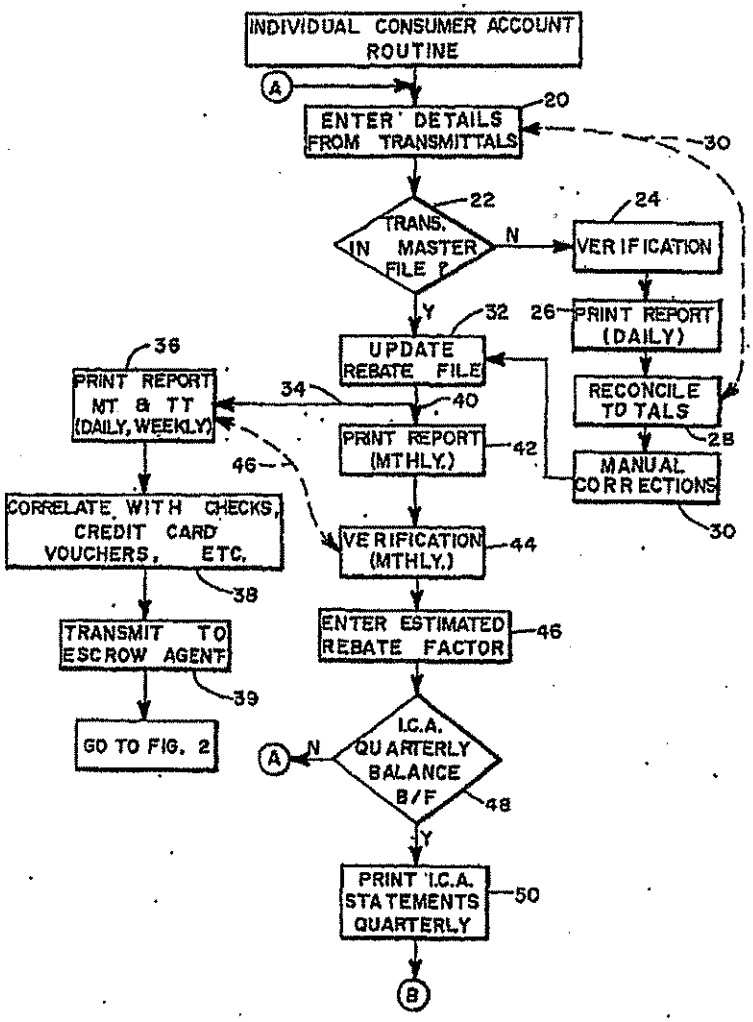

INDIVIDUAL CONSUMER ACCOUNT ROUTINE
A
ENTER DETAILS FROM TRANSMITTALS
20
30
TRANS. IN MASTER FILE ?
22
N
Y
VERIFICATION
24
PRINT REPORT (DAILY)
26
UPDATE REBATE FILE
32
RECONCILE TOTALS
28
MANUAL CORRECTIONS
30
PRINT REPORT NT & TT (DAILY, WEEKLY)
36
34
40
PRINT REPORT (MTHLY.)
42
46
CORRELATE WITH CHECKS, CREDIT CARD VOUCHERS, ETC.
38
VERIFICATION (MTHLY.)
44
TRANSMIT TO ESCROW AGENT
39
ENTER ESTIMATED REBATE FACTOR
46
GO TO FIG. 2
I.C.A. QUARTERLY BALANCE B/F
48
PRINT I.C.A. STATEMENTS QUARTERLY
50
B

FIG. 1a

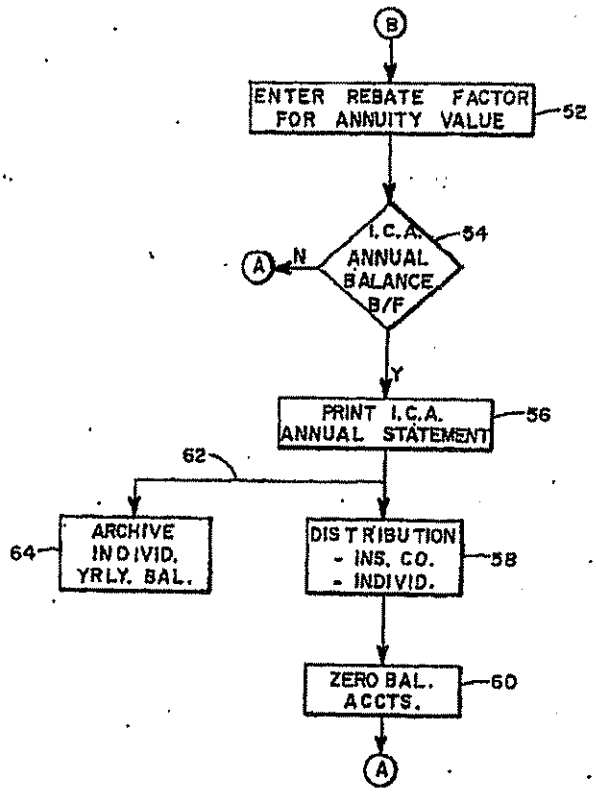

B
ENTER REBATE FACTOR FOR ANNUITY VALUE
52
I.C.A. ANNUAL BALANCE B/F
54
N
A
Y
PRINT I.C.A. ANNUAL STATEMENT
56
62
ARCHIVE INDIVID. YRLY. BAL.
64
DISTRIBUTION - INS. CO. - INDIVID.
58
ZERO BAL. ACCTS.
60
A

FIG. 1b

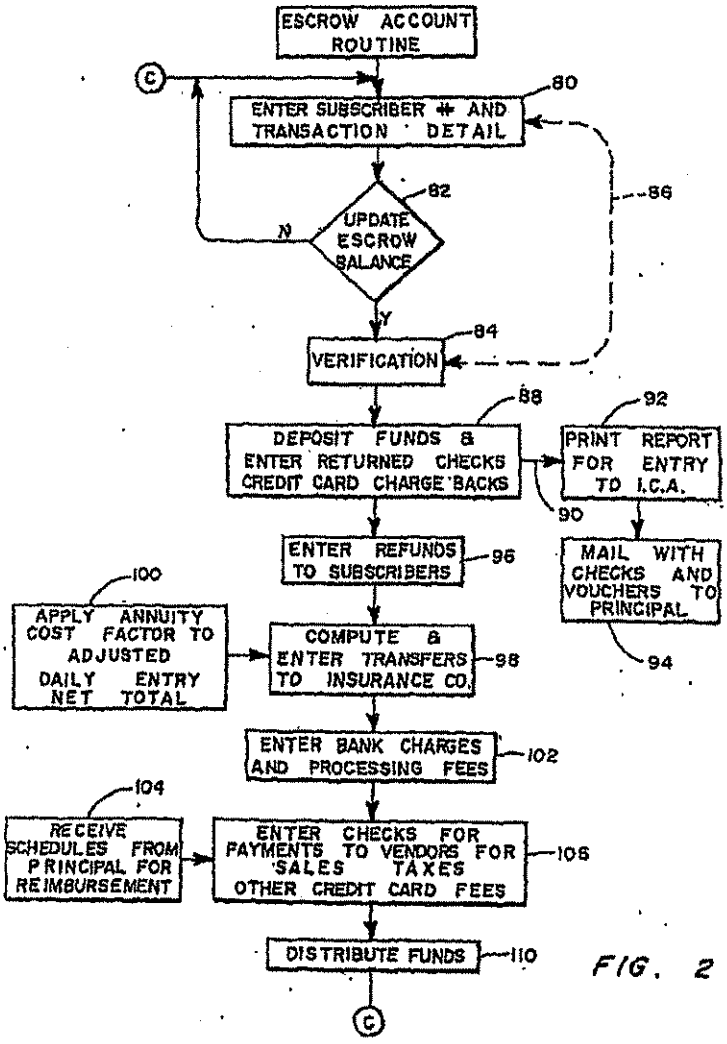

ESCROW ACCOUNT ROUTINE
C
80
ENTER SUBSCRIBER # AND TRANSACTION DETAIL
82
UPDATE ESCROW BALANCE
N
Y
86
84
VERIFICATION
88
DEPOSIT FUNDS & ENTER RETURNED CHECKS CREDIT CARD CHARGE BACKS
92
PRINT REPORT FOR ENTRY TO I.C.A.
90
ENTER REFUNDS TO SUBSCRIBERS
96
MAIL WITH CHECKS AND VOUCHERS TO PRINCIPAL
94
100
APPLY ANNUITY COST FACTOR TO ADJUSTED DAILY ENTRY NET TOTAL
COMPUTE & ENTER TRANSFERS TO INSURANCE CO.
98
ENTER BANK CHARGES AND PROCESSING FEES
102
104
RECEIVE SCHEDULES FROM PRINCIPAL FOR REIMBURSEMENT
ENTER CHECKS FOR PAYMENTS TO VENDORS FOR SALES TAXES OTHER CREDIT CARD FEES
106
DISTRIBUTE FUNDS
110
C

FIG. 2

DAILY REPORT

REPORT DATE 00/00/00

TRANSMITTAL	ID	NAME	CODE	TICKET / DETAIL	BASE COST	TAXES	ADMIN FEE	TOTAL PAID	ICA FUND
T104101	211-11-1111	KURTZ JULIE		TOMALA / J	83.34	6.66	6.00	96.00	89.34
T104102	487-11-1111	WELRON ROBERT J		WELRON / R	184.27	14.73	6.00	205.00	190.27
T104103	265-11-1111	LONG MICHAEL D		LONG / M	399.07	31.93	6.00	437.00	405.07
					666.68	53.32	18.00	738.00	684.68

FIG. 3

VENDOR / ICA INFORMATION

REPORT DATE 00/00/00

TRANSMITTAL	ID	NAME	CODE	TICKET/DETAIL	TAXES	VENDOR CHARGE	ADMIN FEE	TOTAL PAID	ICA FUND
KT07103	000-11-1111	JAMES TOMMY H		MERCHANDISE K-MART	18.75	400.00	8.00	426.75	408.00
KT07104	100-11-0111	KELLY RICHARD P		FLOWERS A B C	1.55	28.00	3.00	32.55	31.00
KT07105	010-11-1011	CARTY JAMES C		FLOWERS A B C	2.55	49.00	2.00	53.55	51.00
KT07106	001-11-1101	LYNDS GLENDON M		FLOWERS A B C	1.55	28.00	3.00	32.55	31.00
KT07107	000-01-1111	MILLER WILLIAM A		FLOWERS A B C	1.55	28.00	3.00	32.55	31.00
KT07108	110-11-1111	DALMAU FRANCES		PLANT A B C	1.55	27.00	4.00	32.55	31.00
					27.50	560.00	23.00	610.50	583.00

FIG. 4

INDIVIDUAL CONSUMER ACCOUNT STATEMENT

JOHN DOE
101 ANY STREET
PLEASANTVILLE, USA

1ST QUARTER
APRIL, MAY, JUNE, 1986
ID: 000-00-0000

DATE	DESCRIPTION	TOTAL AMOUNT	LESS TAXES	ESTIMATED REBATE FACTOR	FUTURE REBATE
05/01/86	PHONE	$ 106.48	$ 101.50	90 %	$ 91.35
	TOTAL QUARTERLY DEFERRED REBATE				$ 91.35
	BALANCE FORWARD				$ 201.60
	TOTAL DEFERRED REBATE				$ 292.95

FIG. 5

PURCHASING SYSTEM WITH REBATE FEATURE

The present application relates to a purchasing system computer program and particularly relates to a system which includes a future guaranteed rebate to the purchaser of goods and services.

Traditionally, in a retail marketing system, vendors market their goods and services utilizing various schemes, such as advertising, leaflets and such, to inform the consumer/purchaser of the availability of the goods and services and to obtain the continued patronage of the purchaser. This marketing strategy almost dictates that the advertising will continue indefinitely.

With the increased awareness of consumers of the quality and price of products, goods and services, this type of marketing strategy is expensive and does not assure that the consumer/purchaser will return to a particular vendor.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide a computer program, utilized in combination with a purchasing or transactional system, which allows subscriber-purchasers to buy goods and services and obtain future guaranteed rebates based upon the cost of that purchase.

It is another object of the present invention to provide an orderly control of funds between a purchaser-subscriber, a plurality of vendors and a future benefit guarantor using a data processing program on a computer.

It is an additional object of the present invention to produce reports showing the subscriber-purchaser his future rebates in order to motivate the purchaser to patronize vendors who are associated with the purchasing system.

SUMMARY OF THE INVENTION

In one embodiment, the system for purchasing goods and services is combined with a transactional system utilized by a plurality of subscriber-purchasers, a plurality of vendors and a future benefit guarantor. The future benefit guarantor provides a rebate factor which is periodically calculated. The guarantor, in one working embodiment, is an insurance company and the rebate is an annuity contract due 20 years from the end of a fiscal accounting year. The purchasing system includes means for inputting purchase orders from a plurality of subscriber-purchasers for selected goods and services available from the vendors. These orders are input over a short period of time, for example, on a daily basis. Means is provided for correlating the transfer of funds with the orders, the funds coming from the subscriber-purchasers for the cost of the selected goods and services. In one embodiment, the transfer occurs between the subscriber-purchasers and an escrow agent and in another embodiment a simple correlation between the purchase orders and the receipt of funds is made.

The rebate factor supplied by the future benefit guarantor, the insurance company, is input into the system. An estimate of the future rebate is computed based upon the cost of the individually selected goods and services and an estimated rebate factor as input into the program. This computation is reported to the individual subscriber-purchaser in order to motivate that subscriber-purchaser to continue to patronize the vendors utilizing this transactional system.

In one embodiment, the purchasing system or the computer program generates instructions to pay the vendors for the plurality of selected goods and services and pay the future rebate guarantor, the insurance company, a premium representing the purchase price of all the future guaranteed rebates that the insurance company will be required to make to the plurality of purchaser-subscribers on the predetermined future date. The predetermined future date is the day 20 years from the end of the fiscal year.

Throughout the fiscal year, i.e., the accounting period, the paid-in premium purchases a group annuity policy and at the end of the fiscal year, the insurance company is instructed via the inventive purchasing system to issue individual future guaranteed annuity contracts to each purchaser-subscriber based upon the purchaser's total rebate accumulated over the fiscal year. Therefore, the total rebates over the fiscal year are accumulated and instructions are issued to the insurance company by this computer program system.

In another embodiment, the vendors are paid directly with the assistance of the computer program. As a further alternative, the subscriber-purchasers are provided only an estimated rebate during the fiscal year. In the latter situation, the insurance company initially provides an estimated rebate factor at the beginning of the fiscal year. A look-up table shows the premium due on each day of the fiscal year versus the dollar amount of the purchases made on that particular day. The purchasing system in this embodiment includes a means for deducting the premium from the received funds to obtain net funds, segregating those net funds with respect to each vendor selling the selected goods and services, and transferring the segregated funds with the segregated orders to the respective vendors. This computer program also includes means for inputting an updated rebate factor at the end of the fiscal year provided by the insurance company and means for preparing a final report for each subscriber-purchaser. The final report shows the total future rebate or the value of the annuity contract due 20 years from the end of that fiscal year based upon the total purchase orders by that subscriber-purchaser and upon the updated rebate factor.

BRIEF DESCRIPTION OF THE DRAWINGS

Further objects and advantages of the present invention will be found in the detailed description of the invention and in the accompanying drawings in which:

FIGS. 1a and 1b show a general flowchart of the Individual Consumer Account routine for the purchasing system in accordance with the principles of the present invention;

FIG. 2 illustrates a flowchart for the escrow account routine in accordance with the principles of the present invention;

FIG. 3 shows a daily report to verify the receipt of funds or money;

FIG. 4 shows a vendor/ICA information report listing the purchased merchandise, the associated vendor and various fund allocations; and

FIG. 5 shows an Individual Consumer Account statement (ICA) in accordance with the present invention.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to a computer program utilized in conjunction with a transactional system for purchasing goods and services.

The transactional system involves a plurality of subscriber-purchasers, a plurality of vendors making available goods and services, and a future benefit guarantor. Hereinafter, the future benefit guarantor will be referred to as an insurance company since the future benefit or future rebate is the sum of money paid to the consumer/purchaser 20 years from the end of the fiscal year in which the consumer makes the purchase through the transactional system. As used herein the terms "consumer," "purchaser" and "subscriber-purchaser" all refer to an individual utilizing this transactional system to purchase a selected good or service. The use of the term "subscriber" is based on this concept that the individual subscribes to this transactional system of trading or marketing goods and services.

As is known, an annuity contract is a contract between two parties, such as an individual and an insurance company, wherein the insurance company is obligated to pay either a fixed amount of money at some definite time in the future or to pay periodic amounts of money over a set period of time to the individual. The annuity contracts discussed herein represent an agreement between the insurance company and the individual such that the insurance company will pay the individual a certain amount of money 20 years in the future. The use of an annuity contract as a future rebate is not meant to limit the scope of the invention herein. Other future rebates can be utilized with this purchasing system as long as those rebates are a fixed amount and are due and payable at a certain date in the future. Further, the use of an insurance company as the future benefit guarantor herein is not meant to limit the scope of the claims since any person or entity can enter into an annuity contract requiring that person to pay a sum of money to another at a certain date in the future. The scope of the claims appended herein is meant to encompass such guarantors.

A general description of the transactional system follows. The consumer or subscriber-purchaser, places an order for a selected good or service from a particular vendor selected by the purchasing center. For example, that order may be placed over the telephone to an individual at a purchasing center. Herein, the purchasing center is the place where the orders are processed and the various reports and the transfer of funds are verified. This purchasing center need not necessarily be a centralized operation but may be spread over several locations. In that sense, the computer program generating the reports and instructions for the flow of funds and the flow of information to the subscriber-purchaser may also be at a decentralized location. Of course, to be most efficient, the program would normally be run at a central data processing center which may or may not be at the purchasing center that acts as an input and output data processing center. The scope of this invention is not limited to a centralized nor a decentralized system.

The purchaser communicates his purchase to the individual at the purchasing center and communicates the preferred method of paying for those goods and services. The individual at the purchasing center then inputs this order into the purchasing system program. The purchaser then sends the funds, representing the cost of the goods and services, to the purchasing center. After verifying the order and the receipt of funds, in one embodiment, the purchasing center sends the funds and an instruction to pay that particular vendor selling that particular good or service to an escrow agent.

In a preferred situation, the operator of the purchasing system has negotiated with a wide variety of vendors to pay a generally wholesale price for the goods and services. Therefore, a differential exists between the price paid by the purchaser-subscriber and the wholesale price due the vendor. Vendors are motivated to join this transactional system because purchasers will be motivated to patronize their shops to the exclusion of other vendors because of the future rebate guaranteed to the purchaser by the system. With the guaranteed patronage of purchasers, the vendors have lower marketing costs for advertising, etc., and therefore can offer reduced prices to the operator of the purchasing system. In a current embodiment, the vendors are non-exclusive wholesalers of a number of goods and services, i.e., two or three vendors sell the same goods.

Returning to the general description of this embodiment, the escrow agent pays the insurance company a premium for an aggregate annuity policy and then pays the vendor the wholesale price for the selected good or service. An aggregate annuity policy is purchased on a daily basis by the escrow agent for all the purchases made by all the subscriber-purchasers input into the system that day. The escrow agent also pays the sales tax due any taxing authorities for the purchase of the selected goods or services, pays credit card transaction fees and any other miscellaneous fees such as the administrative expenses by the operator of the purchasing system. As used herein, the "purchasing system" refers to the computer program identifying and controlling the flow of orders, funds and information to the vendors, escrow agent, insurance company and the purchaser-subscribers. The term "transactional system" refers to the overall concept of purchasing goods and services and receiving a future guaranteed rebate.

At the end of each accounting quarter, the system generates a quarterly report for each subscriber-purchaser showing the total individual purchases made during the quarter and an estimated rebate due 20 years from the end of the fiscal year covering that quarter. As stated above, the rebate is payable by the insurance company to the individual subscriber-purchaser.

At the end of the fiscal year, the insurance company provides a fixed or updated rebate factor that is based, in one embodiment, on the 20-year Treasury bond rate of return. After inputting this updated rebate factor into the purchasing system, the system then generates a final accounting for each subscriber-purchaser showing the definite rebate due 20 years from the end of the fiscal year based upon the updated rebate factor from the insurance company and further based upon the total purchases by the subscriber-purchaser during that fiscal year (herein FY).

The purchasing system also generates an instruction to the insurance company to issue individual annuity contracts to each individual subscriber-purchaser. As described earlier, during the fiscal year, the insurance company provides an aggregate annuity policy for all the purchaser-subscribers and then at the end of the year converts that aggregate or group annuity policy into individual annuity policies for each subscriber-purchaser.

This transactional system motivates the subscriber-purchasers to return to the purchasing center that utilizes part of the transactional system. The purchasing system embodied by the computer program described herein assists in the transfer of funds and the dissemination of information and instructions to the vendor, the

insurance company as the future benefit guarantor, and each individual subscriber-purchaser.

A detailed description of one embodiment of the purchasing system program is found in FIGS. 1a, 1b and 2.

The Individual Consumer Account routine is shown in flowchart form in FIG. 1a. Step 20 shows that orders from a plurality of subscriber-purchasers for selected goods and services are input into the system. This is done over a short time period, preferably per day. Table I that follows shows the information on a detail report which is entered into the Individual Consumer Account (herein ICA) routine. The items in the left-hand column of Table I appear for each transaction and the items in the right-hand column of Table I represent the totals for the entire data input sheet that includes up to approximately 25 transmittals from individual subscriber-purchasers. Table II, that immediately follows, shows the breakdown for the received funds and also appears on the transmittal sheet.

TABLE I

Subscriber Number	
Name	
Item Detail of Goods/Service	
Method of Payment	
Base Price	Total Base
Tax	Total Tax
Administration Fee	Total Admin
Total Price of Item	Grand Total

TABLE II

Cash
Credit Cards
Airline Reporting Corp. Vouchers
Checks
Total Funds Received

An additional piece of information associated with each transaction is the vendor supplying the goods or services. In one embodiment, all the transmittals for one vendor are input at one time since the transmittal forms are compiled in the field and then sent to the purchasing system center. Table I is not meant to be exhaustive and could be modified or expanded to include information on the particular vendor.

Decision step 21 in FIG. 1a inquires whether those particular transmittals are already in the master file. Particularly, step 22 determines whether the subscriber-purchaser is in the master file. If the decision is NO, verification routine 24 is entered. Step 26 prints a daily report that is shown in FIG. 3 and in step 28 the totals are reconciled with the input transmittal forms initially used to input data into the ICA routine in step 20. Dashed line 30 shows the relationship between these two steps. This reconciliation normally is done manually as a data input checking routine. Step 38 involves manually correcting the data base in the purchasing system program and step 32 updates the rebate file. The YES branch from decision step 22 also leads to update rebate file step 32.

The rebate file is a file in the computer system for each individual subscriber-purchaser. The file holds information on the items shown in Table III below. Table III does not represent the entire content of the rebate file.

TABLE III

Subscriber Number
Subscriber Name
Address
Telephone Number
Purchases Current Quarter
Purchases Previous Quarters in FY
Rebates Current Quarter
Rebates Previous Quarters

On a daily basis, the program branches along branch 34 to step 36, the print daily MT report and report weekly TT report. A typical report generated by step 36 is shown in FIG. 4. FIG. 4 shows from left to right the transaction number, the ID number of the subscriber-purchaser, the name of the subscriber-purchaser, the type of merchandise bought by the subscriber-purchaser, where the merchandise was bought, i.e., the vendor's name, the sales taxes due for that purchase, the vendor charge or the funds due the vendor for the purchase of the goods, the administration fee (admin fee) due to the processing center for processing this transaction, the total amount paid by the subscriber-purchaser, and the ICA fund.

As stated earlier, this transactional system works on the theory that the vendor can charge less for his goods and service if he can be guaranteed repeat customers and therefore he does not have to conduct extensive advertising since those customers will continue to return because of the prospect of the customers' receiving a future rebate.

Step 38 correlates the checks, credit card vouchers and generally the funds received from all the subscriber-purchasers to the daily MT report. Step 39 transmits the report and the funds to an escrow agent. In one embodiment, an independent escrow agent is used to handle the funds from all the purchaser-subscribers. This independent escrow agent is a distinct entity as compared with the purchasing center. However, in another embodiment, the escrow agent is simply a separate department within the purchasing center which handles the funds as distinct from the data input and account payable departments of the purchasing center.

Returning to update rebate file step 32, after a certain period of time, such as a month, branch 40 is taken and step 42 involves printing a report on a monthly basis which is a further check of the data input into the system. This verification occurs in step 44 and dashed line 46 shows that the weekly TT reports are justified against the updated rebate files produced in step 32 to ensure the integrity of the data base and accounting system.

In step 45, an estimated rebate factor is input into the system. This estimated rebate factor is provided by the insurance company based upon the expected value of an annuity contract at the end of a 20-year period. The insurance company in one embodiment is instructed to purchase 20-year Treasury bonds first as a group annuity policy throughout the fiscal year and then at the end of the fiscal year to subdivide that group policy into individual policies for each subscriber-purchaser.

The purpose of using an estimated rebate factor is to motivate the subscriber-purchasers to utilize this transactional system further. In another embodiment, the estimated rebate factor is 100% and that rebate factor is adjusted appropriately at the end of the fiscal year when the insurance company provides the fixed or certain rebate factor for the 20-year annuity contracts.

Decision step 48 determines whether a three-month period or a quarter has passed and, if not, the routine jumps back, via flowchart points A, to transmittal entry step 20. If a quarter has passed, the balance for the previous quarters in the fiscal year is brought forward, the current quarter figures are added thereto, and in step 50 an Individual Consumer Account statement is printed out, reported and distributed to each subscriber-purchaser. This report is shown in FIG. 5.

As seen from the report in FIG. 5, the date of each transaction is provided, a description of the transaction, the total amount paid to the purchasing center, the net cost of the goods less taxes, an estimated rebate factor (shown as 90% in FIG. 5) and a future rebate value is shown for each purchase. The current quarterly rebate, the balance forward rebate from previous quarters and the year-to-date rebate are also reported. This information is taken directly from the rebate file associated with each subscriber-purchaser.

Following flowchart jump point B from FIG. 1a to FIG. 1d, an updated rebate factor is input into the purchasing system as shown in step 52. This updated rebate factor is provided by the insurance company at the end of the fiscal year which in one embodiment is March 31. The insurance company at that time can provide a definitive value of the annuity contracts and hence the program can compute the individual annuity contract rebate values for each subscriber-purchaser based upon that purchaser's total purchases versus all the purchases made through the transactional system (i.e., the percentage of individual to the total goods and services bought by all purchasers).

Decision step 54 determines whether the end of the fiscal year has occurred and if not the program jumps, via jump point A, to step 20 in FIG. 1a. If the fiscal year has ended, step 56 prints the ICA annual statement for each Individual Consumer Account. A portion of this ICA statement is distributed to the insurance company as noted in step 58 in order to instruct the insurance company to prepare an individual annuity contract for that respective subscriber-purchaser. Of course, each individual subscriber-purchaser receives the annual ICA statement. Step 60 zero balances the accounting system and the system returns to jump point A immediately preceding the enter transmittals step 20 in FIG. 1a. A branch 62 occurs after printing step 56 which archives the individual subscriber-purchaser's yearly balance into some memory in step 64.

FIG. 3 shows the escrow account routine for handling the transfer of funds. Step 80 involves entering the subscriber number and the transaction detail. This step occurs in one embodiment of the present invention when the escrow agent is a distinct entity as compared simply with a department within the purchasing center. In another embodiment, when the escrow agent is not a distinct entity, i.e., when the vendors are paid directly by the purchasing center, step 80 is not necessary since the program already has this information in its files. Decision step 82 determines whether the transaction has already been entered and whether to update the escrow balance. If the transaction has not been entered, verification step 84 is conducted which, as shown by dashed lines 86, compares the data entered on the computer with the transaction details supplied to the escrow agent in step 80.

Step 82 deposits the funds transmitted to the escrow agent and enters return checks and credit card charge backs if checks are returned for any reason or if the subscriber-purchasers require credit card charge backs. Branch 90 extends to step 92 which prints the report for the ICA to adjust the ICA accounts and the rebate files described with respect to FIGS. 1c and 1d. Step 94 is provided for transmitting the returned checks and charge back vouchers from the escrow agent to the purchasing center labeled as "Principal" in step 94. Step 96 enters the refunds to the subscriber-purchasers due to the returned checks or credit card charge backs in step 88.

Step 98 computes the premium due the insurance company for the aggregate annuity policy and further enters the transfers to that insurance company. Input step 100 involves inputting the rebate factor or the amount of the premium into the program. Table IV below shows that the premium due varies based upon a given aggregate ICA fund value and based upon the particular day within the fiscal year. Table IV assumes the insurance company has estimated the cost of the 20-year Treasury bonds accurately and has set that premium charge for the entire year. Table IV is only illustrative of how a premium may be calculated by the operation of a look-up table in the program. The premiums shown herein are not accurate.

TABLE IV

Daily Aggregate ICA Fund $	Day1	Day2	Day3	...	Day364
0	0	0	0		0
100	5.00	5.30	5.40		10
200	10.00	10.60	10.80		20
•					
•					
•					
10,000	500.00	502.00	503.00		1000.00
10,100	505.00	—	—		1010.00
10,200	510.00	—	—		1020.00

Of course, the insurance company may adjust the premium, and hence adjust the rebate factor, more often than once a year, for example, each quarter or each month, depending on the volatility of 20-year Treasury bonds.

Step 102 enters the bank charges and processing fees required to handle all the funds sent to the escrow agent by the relatively great number of subscriber-purchasers. Input step 104 calls for the input of schedules showing the disbursements of funds to vendors and the reimbursement of the administration fee back to the principal for the processing center. Step 106 prints the checks or enters the checks for payment to the vendors, to the taxing authorities, to the credit card companies and to any other entities charging miscellaneous costs against the system. Step 110 shows the actual distribution of these funds and flowchart jump point C returns the program to enter transaction detail step 80 in FIG. 3. In one working embodiment, the vendors are paid directly by the purchasing center and, upon proper notification, the escrow agent reimburses the purchasing center for these vendor payments.

The claims appended hereto are meant to encompass all alternatives and modifications within the scope and spirit of the present invention.

What is claimed is:

1. In combination with a transactional system utilized by a plurality of subscriber-purchasers, an agent, vendors, and a future benefit guarantor, a system for purchasing goods and services from said vendors and ob-

taining future guaranteed rebates based in part upon a rebate factor periodically calculated by said future benefit guarantor comprising:

means for inputting purchase orders from a plurality of subscriber-purchasers for selected goods and services that are available from said vendors, said orders originating from said plurality of subscriber-purchasers over a short time period;

means, coupled to the order input means, for correlating a transfer of funds with said orders for said selected goods and services, said funds representing the cost to said subscriber-purchasers of said selected goods and services and said transfer occurring between said subscriber-purchasers and said agent;

means for inputting said rebate factor on a periodic basis;

means, coupled to the correlation means and the factor input means, for computing and reporting a rebate, due in the future, to each individual subscriber-purchaser at a predetermined future date from said future benefit guarantor to each said subscriber-purchaser based upon the cost of the individually selected good and service and said rebate factor; and,

means, coupled to said correlation means, for providing instructions to pay:

said vendors for said plurality of selected goods and services;

said future rebate guarantor a premium representing said purchase price of said future guaranteed rebates that the future benefit guarantor will be required to make to said plurality of purchaser-subscribers on said predetermined future date.

2. A combination as claimed in claim 1 further comprising:

means for accumulating, on an individual basis, the total purchase orders for each individual purchaser-subscriber and the total rebates over an accounting time period that comprises a plurality of said short time periods;

means, coupled to the accumulating means, for further instructing said future benefit guarantor to issue individual future guaranteed rebate contracts to each said purchaser-subscriber based upon said total rebate accumulated over said accounting time period at the end of said accounting time period;

wherein said instruction to pay said premium for said future guaranteed rebates is for an aggregate rebate for all said purchaser-subscribers over said accounting time period.

3. A combination as claimed in claim 2 wherein said short time period is a daily time period, said accounting time period is a yearly time period, and said rebate factor is calculated by said future benefit guarantor on a yearly basis.

4. In combination with a transactional system utilized by a plurality of subscriber-purchasers, vendors, and a future benefit guarantor, a system for purchasing goods and services from said vendors and obtaining future guaranteed rebates based in part upon a rebate factor periodically calculated by said future benefit guarantor comprising:

means for inputting purchase orders from a plurality of subscriber-purchasers for selected goods and services that are available from said vendors, said orders originating from said plurality of subscriber-purchasers over a short time period;

means, coupled to the order input means, for correlating a receipt of funds with said orders for said selected goods and services, said funds representing the cost to said subscriber-purchasers of said selected goods and services;

means for inputting said rebate factor on a periodic basis;

means, coupled to the correlation means and the factor input means, for calculating a premium for a future guaranteed rebate based upon the totality of funds received during said short time period, said rebate factor and the number of days to the end of an accounting period, said accounting period comprising a plurality of said short time periods;

means, coupled to said correlation means and the calculating means, for instructing and reporting the payment of said premium to said future rebate guarantor representing a purchase price of said future guaranteed rebates that the future benefit guarantor will be required to make to said plurality of purchaser-subscribers at a predetermined date in the future;

means, coupled to said calculating means, for deducting at least said premium from said funds to obtain net funds and for segregating said net funds and said orders with respect to each vendor selling said selected goods and services and for transferring said segregated funds with the segregated orders to the respective vendors;

means, coupled to the correlation means and the factor input means, for computing and reporting an estimated rebate, due at said predetermined future date to each individual subscriber-purchaser from said future benefit guarantor, based upon the cost of the individually selected good and service and said rebate factor;

means for accumulating, on an individual basis, the total purchase orders for each individual purchaser-subscriber over said accounting period;

means, coupled to the accumulating means, for further instructing said future benefit guarantor to issue individual future guaranteed rebate contracts to each said purchaser-subscriber based upon said total purchase orders accumulated over said accounting period at the end of said accounting period;

means for inputting an updated rebate factor from said future benefit guarantor at the end of said accounting period;

means for preparing a final report for each said subscriber-purchaser at the end of said accounting period showing a total future rebate due at said predetermined future date based upon said total purchase orders and said updated rebate factor.

5. In combination with a transactional system utilized by a plurality of subscriber-purchasers, vendors, and a future benefit guarantor, a system for purchasing goods and services from said vendors and obtaining future guaranteed rebates based in part upon a rebate factor periodically calculated by said future benefit guarantor comprising:

means for inputting purchase orders from a plurality of subscriber-purchasers for selected goods and services that are available from said vendors, said orders originating from said plurality of subscriber-purchasers over a short time period;

means, coupled to the order input means, for correlating a transfer of funds with said orders for said

selected goods and services, said funds representing the cost to said subscriber-purchasers of said selected goods and services;

means for inputting said rebate factor on a periodic basis;

means, coupled to the correlation means and the factor input means, for computing and reporting a rebate, due in the future, to each individual subscriber-purchaser at a predetermined future date from said future benefit guarantor to each said subscriber-purchaser based upon the cost of the individually selected good and service and said rebate factor; and,

means, coupled to said correlation means, for providing information relating to the payment to said vendors for said plurality of selected goods and services;

said future rebate guarantor for a premium representing said purchase price of said future guaranteed rebates that the future benefit guarantor will be required to make to predetermined future date.

6. In combination with a transactional system utilized by a plurality of subscriber-purchasers, vendors, and a future benefit guarantor, a system for purchasing goods and services from said vendors and obtaining future guaranteed rebates based in part upon a rebate factor periodically calculated by said future benefit guarantor comprising:

means for inputting purchase orders from a plurality of subscriber-purchasers for selected goods and services that are available from said vendors, said orders originating from said plurality of subscriber-purchasers over a short time period;

means, coupled to the order input means, for correlating a receipt of funds with said orders for said selected goods and services, said funds representing the cost to said subscriber-purchasers of said selected goods and services;

means for inputting said rebate factor on a periodic basis;

means, coupled to the correlation means and the factor input means, for calculating a premium for a future guaranteed rebate based upon the totality of

funds received during said short time period, said rebate factor and the number of days to the end of an accounting period, said accounting period comprising a plurality of said short time periods;

means, coupled to said correlation means and the calculating means, for reporting said premium due said future rebate guarantor representing a purchase price of said future guaranteed rebates that the future benefit guarantor will be required to make to said plurality of purchaser-subscribers at a predetermined date in the future;

means, coupled to said calculating means, for deducting at least said premium from said funds to report net funds and for segregating said net funds and said orders with respect to each vendor selling said selected goods and services and for reporting the segregated funds due each respective vendor;

means, coupled to the correlation means and the factor input means, for computing and reporting an estimated rebate, due at said predetermined future date to each individual subscriber-purchaser from said future benefit guarantor, based upon the cost of the individually selected good and service and said rebate factor;

means for accumulating, on an individual basis, the total purchase orders for each individual purchaser-subscriber over said accounting period;

means, coupled to the accumulating means, for further reporting the individual future guaranteed rebate contracts due each said purchaser-subscriber based upon said total purchase orders accumulated over said accounting period at the end of said accounting period;

means for inputting an update rebate factor from said future benefit guarantor at the end of said accounting period;

means for preparing a final report for each said subscriber-purchaser at the end of said accounting period showing a total future rebate due at said predetermined future date based upon said total purchase orders and said updated rebate factor.

* * * * *

US005465206A

United States Patent [19]

Hilt et al.

[11] Patent Number: 5,465,206

[45] Date of Patent: Nov. 7, 1995

[54] ELECTRONIC BILL PAY SYSTEM

[75] Inventors: James J. Hilt, Daly City; Ron Hodges, San Ramon; Stephen W. Pardus, Half Moon Bay; William L. Power, Palo Alto, all of Calif.

[73] Assignee: Visa International, San Mateo, Calif.

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[51] Int. Cl.[6] G06F 157/00

[52] U.S. Cl. 364/406

[58] Field of Search 364/406, 408, 364/401; 235/379

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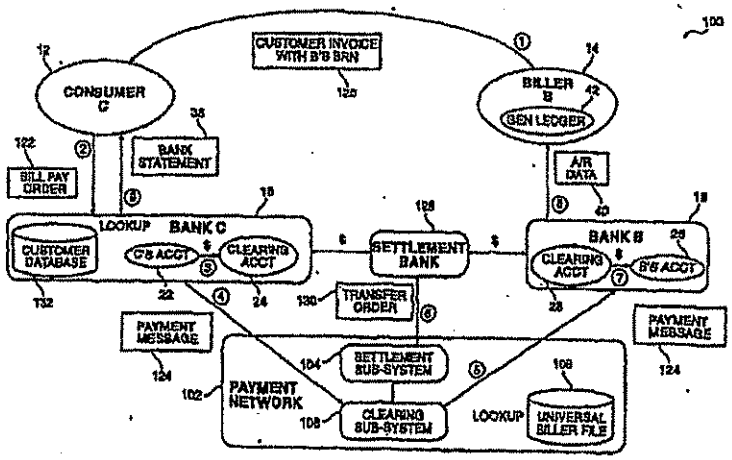
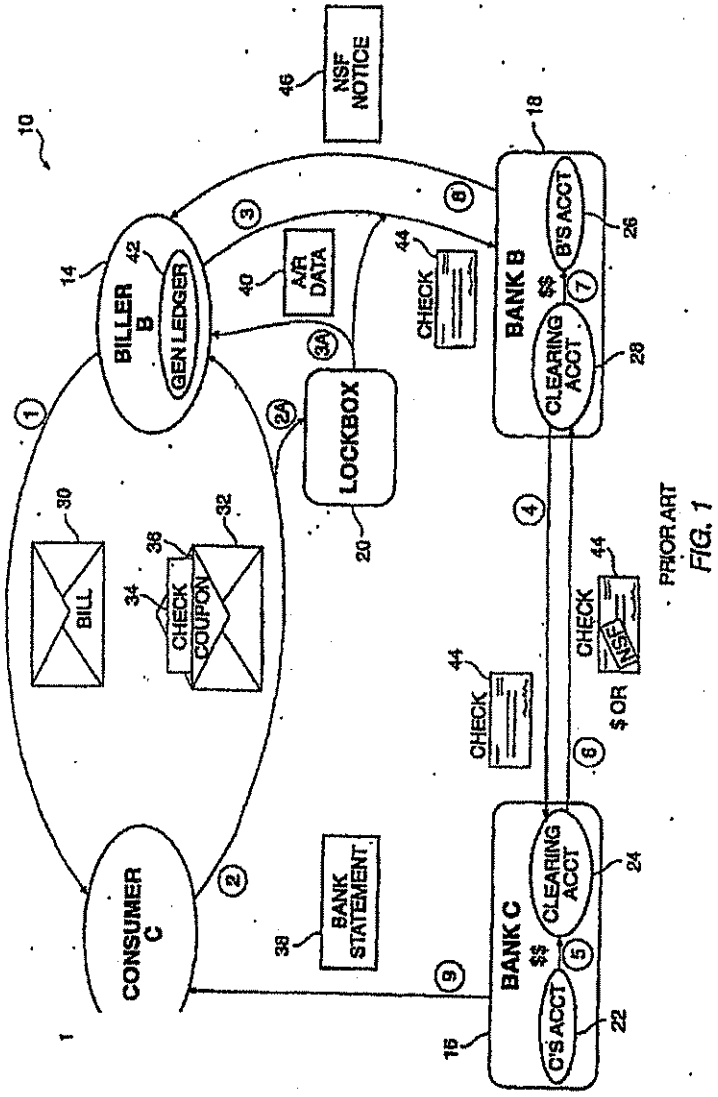
Primary Examiner—Donald E. McElheny, Jr.
Attorney, Agent, or Firm—Townsend and Townsend Khourie and Crew; Philip H. Albert

[57] ABSTRACT

A bill pay system wherein participating consumers pay bills to participating billers through a payment network operating according to preset rules. The participating consumers receive bills from participating billers (paper/mail bills, e-mail notices, implied bills for automatic debit) which indicate an amount, and a unique biller identification number. To authorize a remittance, a consumer transmits to its bank (a participating bank) a bill pay order indicating a payment date, a payment amount, the consumer's account number with the biller, a source of funds and the biller's biller identification number, either directly or by reference to static data containing those data elements. Bank C then submits a payment message to a payment network, and the payment network, which assigns the biller reference numbers, forwards the payment message to the biller's bank. For settlement, the consumer's bank debits the consumer's account and is obligated to a net position with the payment network; likewise, the biller's bank receives a net position from the payment network and credits the biller's bank account. If the consumer's bank agrees to send non-reversible payment messages, the consumer's bank does not submit the transaction until funds are good unless the consumer's bank is willing to take the risk of loss if funds are not good, in the case of a guaranteed payment network. The biller's bank, upon receipt of the payment message, releases the funds to the biller, and provides A/R data to biller in a form which biller B has indicated, the form being one which does not have to be treated as an exception item to the biller. The biller's bank is assured of payment by the payment network, unless the transaction is a reversible transaction according to the preset rules of the payment network. In specific embodiments, the consumer initiates the bill pay orders manually, via paper at an ATM, via PC, or via telephone keypad.

30 Claims, 12 Drawing Sheets

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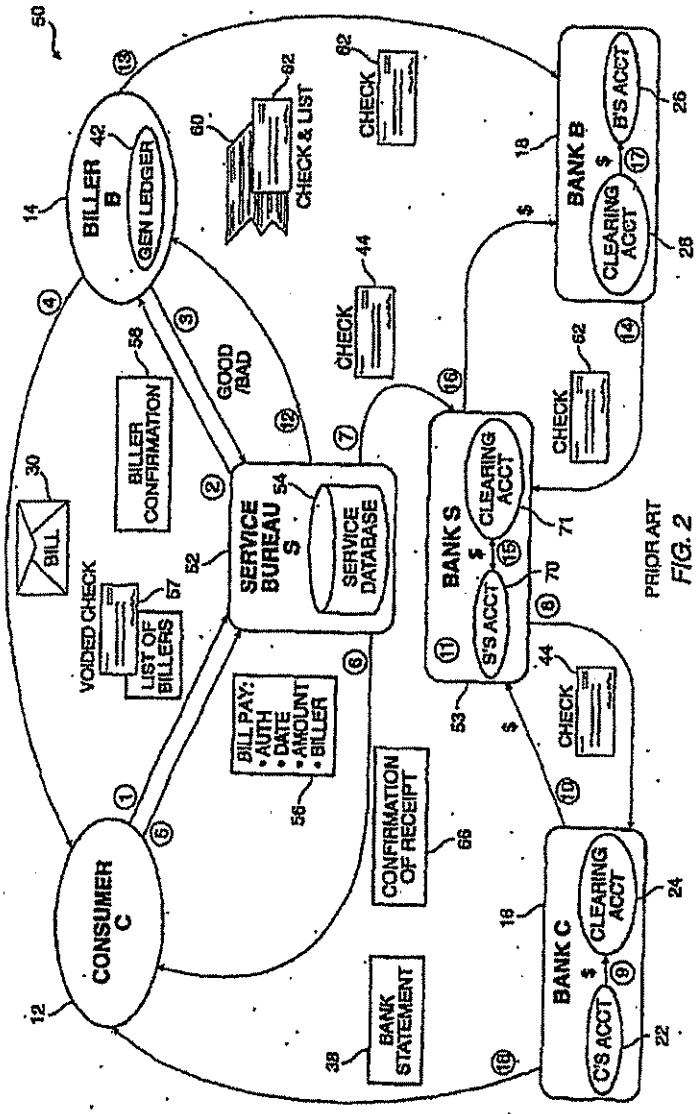
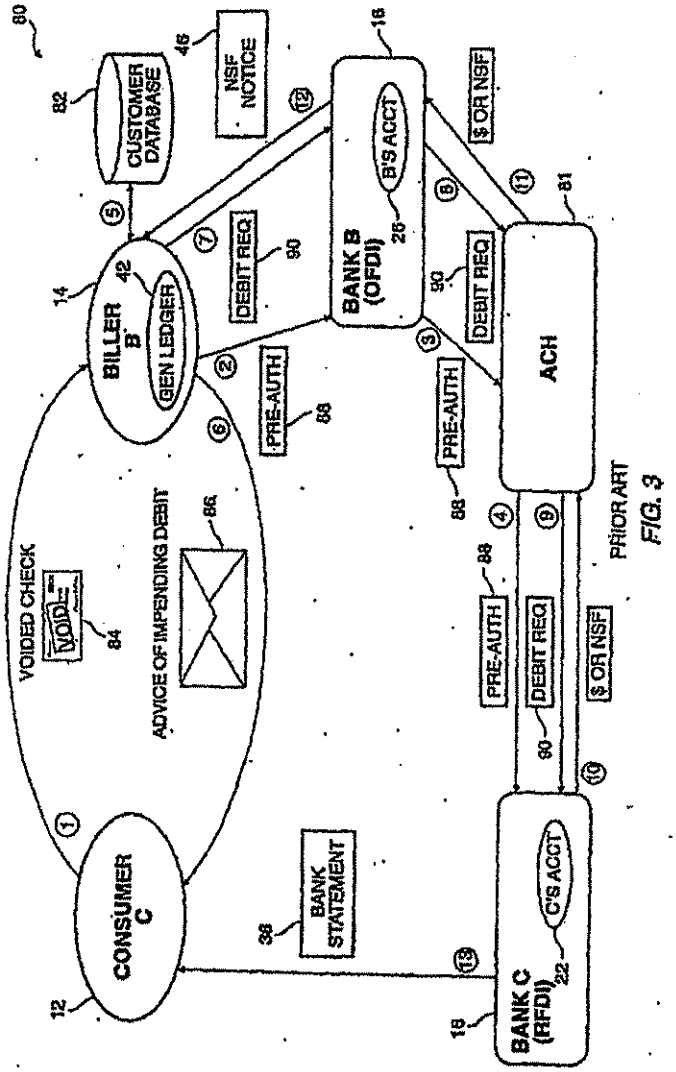
CHECK
44
LOCKBOX
20
2A
1
BILL
30
CHECK
COUPON
34
38
32
CONSUMER C
2
BANK STATEMENT
38
9
BANK C
$$
CLEARING ACCT
24
5
C'S ACCT
22
16
4
6
CHECK
44
$ OR
CHECK
NSF
44
8
PRIOR ART
FIG. 1



PRIOR ART
FIG. 2



PRIOR ART
FIG. 3

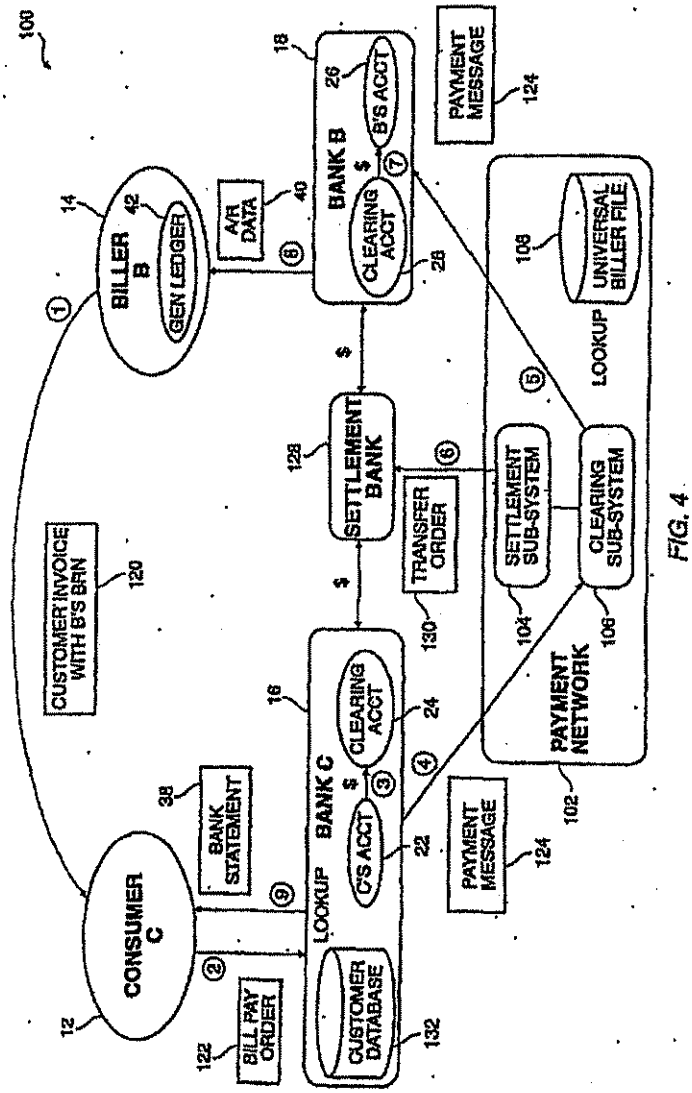

100
CONSUMER C
12
BILLER B
14
GEN LEDGER
42
A/R DATA
40
BANK B
18
B'S ACCT
26
CLEARING ACCT
28
PAYMENT MESSAGE
124
LOOKUP
UNIVERSAL BILLER FILE
108
SETTLEMENT BANK
128
TRANSFER ORDER
130
SETTLEMENT SUB-SYSTEM
104
CLEARING SUB-SYSTEM
106
PAYMENT NETWORK
102
CUSTOMER INVOICE WITH B'S BRN
120
BANK C
16
CLEARING ACCT
24
C'S ACCT
22
BANK STATEMENT
38
BILL PAY ORDER
122
CUSTOMER DATABASE
132
LOOKUP

FIG. 4

BRN	BID	CBMASK	BILLER TEXT	...
918-272-642	493217	##^AA^#C	SOME COMPANY, P.O. BOX...	...
...	...	...	...	...

108/158

FIG. 5

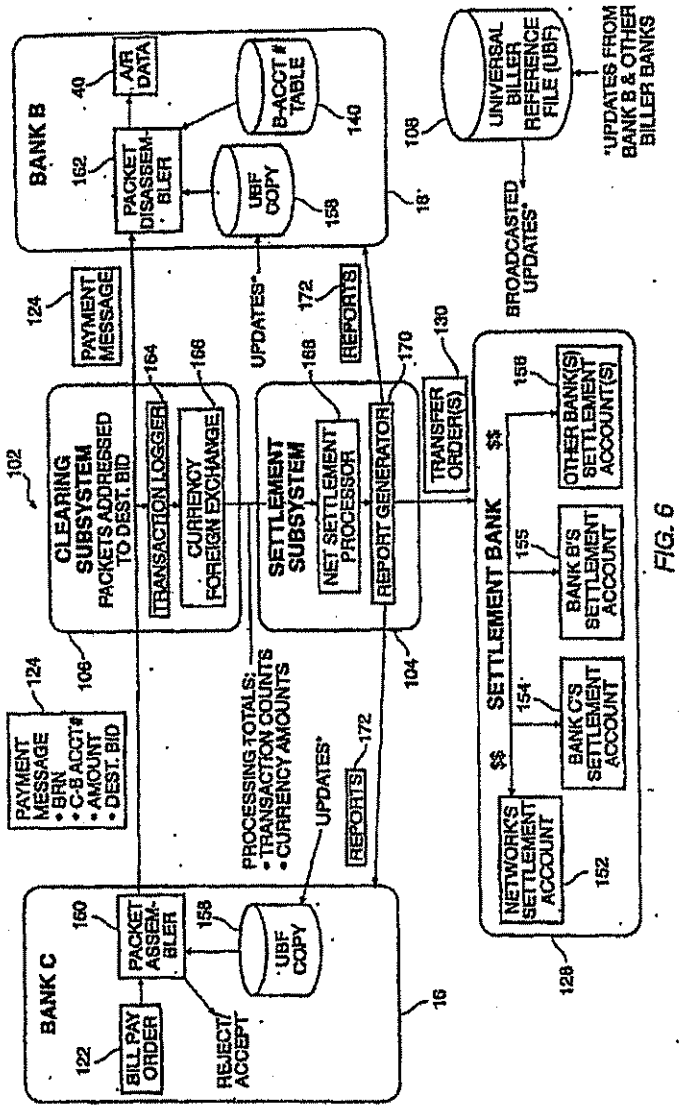

BANK B
40
A/R DATA
162
PACKET DISASSEM-BLER
B-ACCT # TABLE
140
UBF COPY
158
18
108
UNIVERSAL BILLER REFERENCE FILE (UBF)
"UPDATES FROM BANK B & OTHER BILLER BANKS
BROADCASTED UPDATES"
124
PAYMENT MESSAGE
UPDATES"
172
REPORTS
102
CLEARING SUBSYSTEM
PACKETS ADDRESSED TO DEST. BID
164
TRANSACTION LOGGER
166
CURRENCY FOREIGN EXCHANGE
SETTLEMENT SUBSYSTEM
168
NET SETTLEMENT PROCESSOR
170
REPORT GENERATOR
130
TRANSFER ORDER(S)
SETTLEMENT BANK
$$
156
OTHER BANK(S) SETTLEMENT ACCOUNT(S)
155
BANK B'S SETTLEMENT ACCOUNT
154
BANK C'S SETTLEMENT ACCOUNT
NETWORK'S SETTLEMENT ACCOUNT
152
128
106
104
PAYMENT MESSAGE
• BRN
• C-B ACCT#
• AMOUNT
• DEST. BID
PROCESSING TOTALS:
• TRANSACTION COUNTS
• CURRENCY AMOUNTS
UPDATES"
REPORTS
172
BANK C
160
PACKET ASSEM-BLER
158
UBF COPY
122
BILL PAY ORDER
REJECT/ ACCEPT
16

FIG. 6

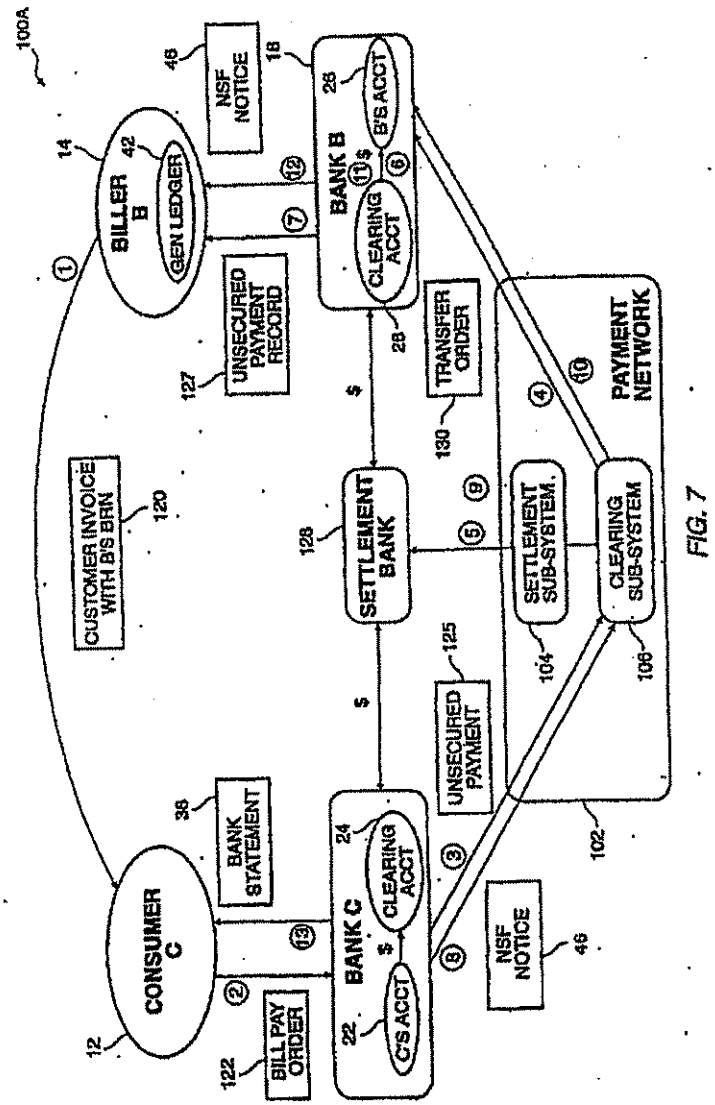

100A
BILLER B
GEN LEDGER
42
14
NSF NOTICE
46
BANK B
B'S ACCT
28
18
CLEARING ACCT
UNSECURED PAYMENT RECORD
127
TRANSFER ORDER
130
PAYMENT NETWORK
CUSTOMER INVOICE WITH B'S BRN
120
SETTLEMENT BANK
128
SETTLEMENT SUB-SYSTEM
CLEARING SUB-SYSTEM
104
106
102
UNSECURED PAYMENT
125
BANK STATEMENT
38
CONSUMER C
12
BANK C
C'S ACCT
22
24
CLEARING ACCT
NSF NOTICE
46
BILL PAY ORDER
122

FIG. 7

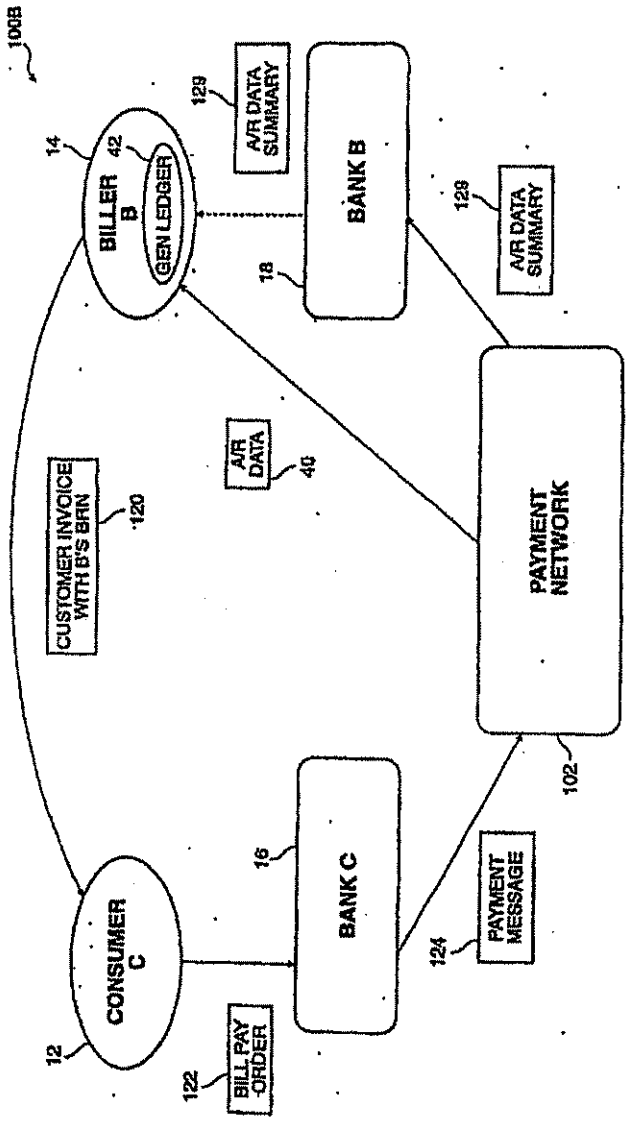

100B
129
A/R DATA SUMMARY
BANK B
14
42
BILLER B
GEN LEDGER
18
129
A/R DATA SUMMARY
A/R DATA
40
CUSTOMER INVOICE WITH B'S BRN
120
PAYMENT NETWORK
102
16
BANK C
PAYMENT MESSAGE
124
CONSUMER C
12
122
BILL PAY ORDER

FIG. 8

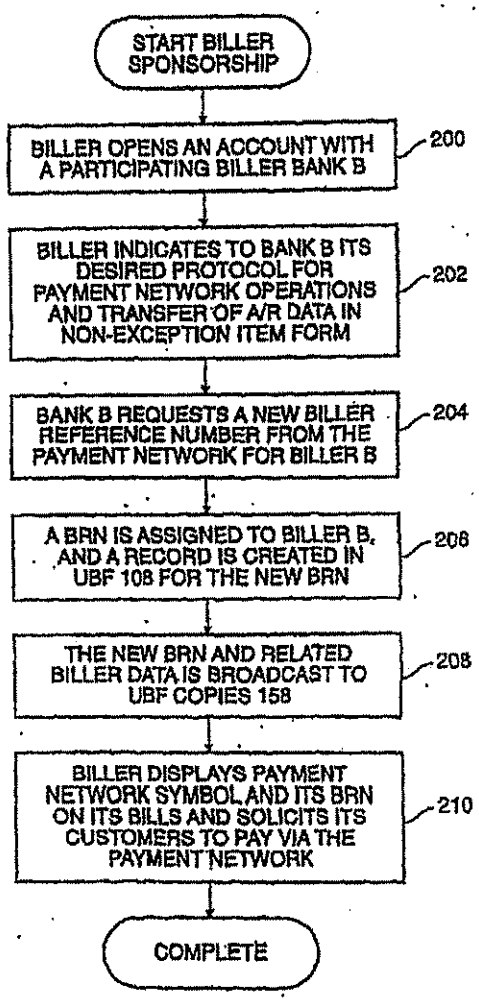

START BILLER SPONSORSHIP
BILLER OPENS AN ACCOUNT WITH A PARTICIPATING BILLER BANK B
200
BILLER INDICATES TO BANK B ITS DESIRED PROTOCOL FOR PAYMENT NETWORK OPERATIONS AND TRANSFER OF A/R DATA IN NON-EXCEPTION ITEM FORM
202
BANK B REQUESTS A NEW BILLER REFERENCE NUMBER FROM THE PAYMENT NETWORK FOR BILLER B
204
A BRN IS ASSIGNED TO BILLER B, AND A RECORD IS CREATED IN UBF 108 FOR THE NEW BRN
206
THE NEW BRN AND RELATED BILLER DATA IS BROADCAST TO UBF COPIES 158
208
BILLER DISPLAYS PAYMENT NETWORK SYMBOL AND ITS BRN ON ITS BILLS AND SOLICITS ITS CUSTOMERS TO PAY VIA THE PAYMENT NETWORK
210
COMPLETE

FIG. 9

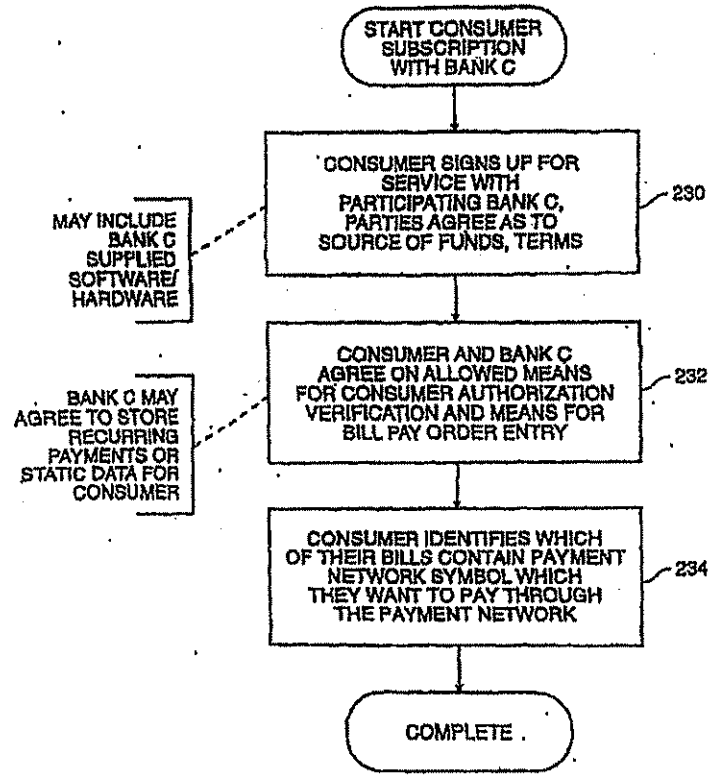

START CONSUMER SUBSCRIPTION WITH BANK C
CONSUMER SIGNS UP FOR SERVICE WITH PARTICIPATING BANK C, PARTIES AGREE AS TO SOURCE OF FUNDS, TERMS
230
MAY INCLUDE BANK C SUPPLIED SOFTWARE/ HARDWARE
CONSUMER AND BANK C AGREE ON ALLOWED MEANS FOR CONSUMER AUTHORIZATION VERIFICATION AND MEANS FOR BILL PAY ORDER ENTRY
232
BANK C MAY AGREE TO STORE RECURRING PAYMENTS OR STATIC DATA FOR CONSUMER
CONSUMER IDENTIFIES WHICH OF THEIR BILLS CONTAIN PAYMENT NETWORK SYMBOL WHICH THEY WANT TO PAY THROUGH THE PAYMENT NETWORK
234
COMPLETE

FIG. 10

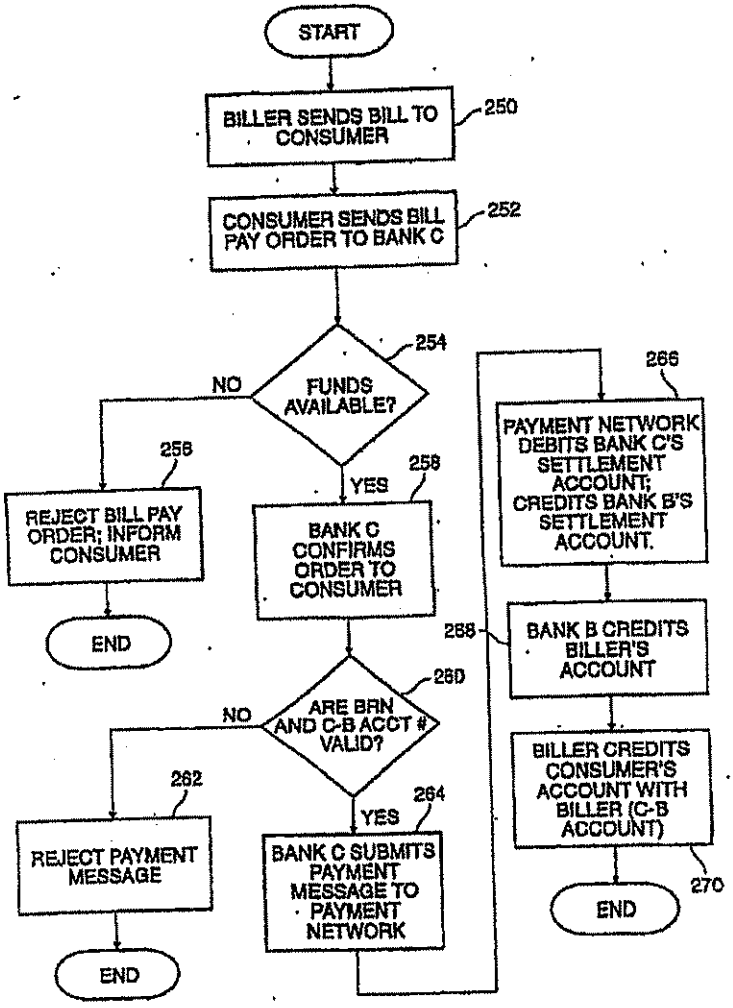

START
BILLER SENDS BILL TO CONSUMER
250
CONSUMER SENDS BILL PAY ORDER TO BANK C
252
254
FUNDS AVAILABLE?
NO
YES
256
REJECT BILL PAY ORDER; INFORM CONSUMER
END
258
BANK C CONFIRMS ORDER TO CONSUMER
260
ARE BRN AND C-B ACCT # VALID?
NO
YES
262
REJECT PAYMENT MESSAGE
END
264
BANK C SUBMITS PAYMENT MESSAGE TO PAYMENT NETWORK
266
PAYMENT NETWORK DEBITS BANK C'S SETTLEMENT ACCOUNT; CREDITS BANK B'S SETTLEMENT ACCOUNT.
268
BANK B CREDITS BILLER'S ACCOUNT
BILLER CREDITS CONSUMER'S ACCOUNT WITH BILLER (C-B ACCOUNT)
270
END

FIG. 11

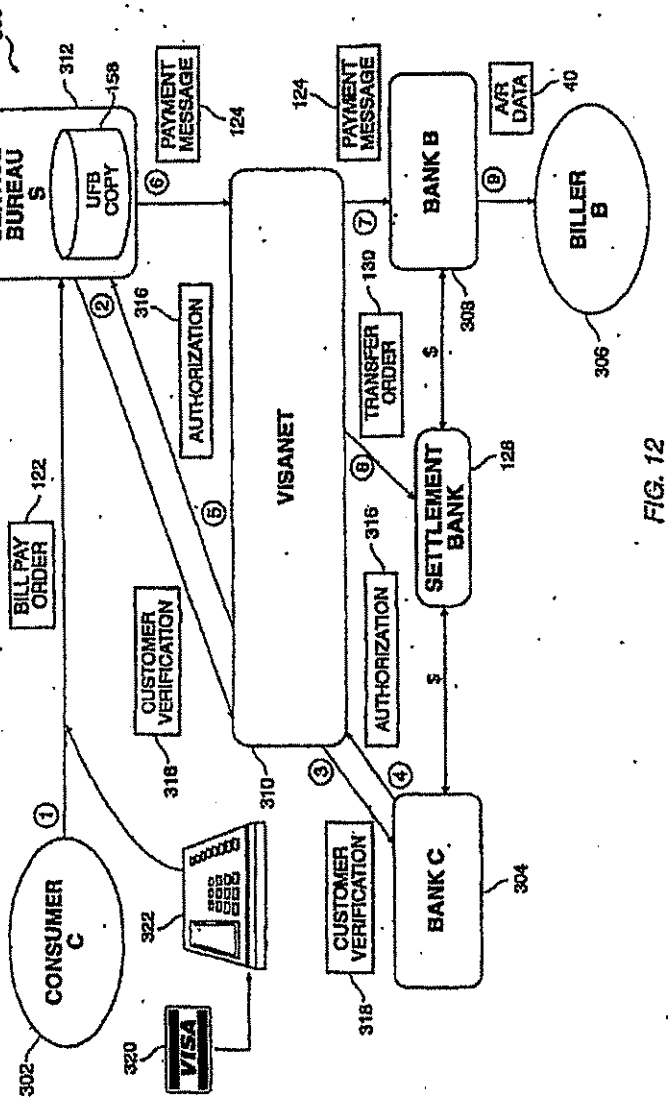

300
312
158
SERVICE BUREAU S
UFB COPY
PAYMENT MESSAGE
124
PAYMENT MESSAGE
124
BANK B
A/R DATA
40
BILLER B
306
308
TRANSFER ORDER
130
AUTHORIZATION
316
VISANET
SETTLEMENT BANK
128
BILL PAY ORDER
122
CUSTOMER VERIFICATION
318
AUTHORIZATION
316
CUSTOMER VERIFICATION
318
CONSUMER C
302
322
320
VISA
BANK C
304
310

FIG. 12

ELECTRONIC BILL PAY SYSTEM

BACKGROUND OF THE INVENTION

The present invention relates to the field of electronic bill payment systems ("bill pay") which allow a consumer to direct their bank, an agent of their bank, or a non-bank bill pay service bureau to pay amounts owed to merchants, service providers and other billers who bill consumers for amounts owed.

Millions of consumers make payments to utilities, merchants and service providers ("billers") by check, with a small number of consumers using non-check means for paying billers. The term "consumer" as used herein broadly refers to any person or entity paying a bill, be it a utility customer, a taxpayer paying a tax, a borrower repaying a loan, etc., which could be a person or a business entity. Consumers are differentiated from "customers" herein because that term could potentially refer to many parties to a bill pay system, in that the biller is a customer of its bank (the "biller bank"), the consumer is a customer of its bank (the "consumer bank"), and consumer might be a customer of a non-bank bill-pay service bureau. The consumer is also usually a customer of the biller. To avoid confusion, the bill paying entity is referred to as the "consumer" and the "biller" is the entity which is to be paid.

Billers, who often are billing small amounts with each transaction, must incur the costs of processing many checks, including the attendant overhead of dealing with remittance processing, such as opening envelopes, data capture of the consumer's account number, MICR (Magnetic Ink Character Recognition) encoding of the check amounts, etc. To ensure that the cost of processing an item is small, billers have set up huge operations for remittance processing, often out-sourcing the work to "lockbox" operations which process and deposit the payments for the biller, supplying the biller with captured consumer data and MICR encoded checks for deposit. The payment coupons which a biller requests to be returned with the consumer's check are often preprinted with scanlines comprising lines of data (account number, amount due, etc.) which can be electronically captured due to the design and placement of the scanlines on the coupon. For example, the necessary information may be provided on the coupon in a bar code, or other mechanically or electronically readable form. Because of this, coupons play a key role in today's remittance processing systems.

Given the economies of scale, a biller has great incentive to reduce the cost of remittance processing and, more significantly, the biller has an even larger incentive to reduce the cost of "exception items." An exception item is a payment which, for some reason, cannot be processed according to the highly automated procedures put in place by the biller to quickly process remittances. Exception items include checks received without payment coupons, payment coupons received without checks, checks for amounts different than the amounts shown on the corresponding coupons, multiple payment coupons received in an envelope with a single check. The cost to process a typical payment transaction is $0.09 to $0.18 per transaction for a high-volume, efficient remittance processing operation, while an exception item transaction might cost as much as $0.65 to 1.50.

Curiously, when a consumer decides to try an alternate form of remittance such as using a bill pay service bureau, either a bank or non-bank service bureau, the cost to the biller increases dramatically, because such a remittance is typically an exception item to most billers today. A bill pay service bureau provides a bill pay service to the consumer whereby the consumer directs the service bureau to make payments to the biller. Since the payment origination is usually done electronically, the remittance is not presented to the biller in the usual way, which is just a check and a payment coupon, in the biller-provided envelope. Instead, the biller usually receives a check printed by the service bureau drawn on the consumer's bank account and showing the consumer's account number with the biller and MICR data encoding the consumer's bank account number. In some cases, the service bureau obtains the funds from the consumer, and then presents the biller with a check drawn on the service bureau's account with instructions to credit the amount of the check to the consumer's account with the biller. In other cases, the payment is an electronic transfer where the consumer's account information is included with the transfer or provided in a list of payments from multiple consumers provided by the service bureau to the biller.

In any case, these transactions are exception items to the biller, since no payment coupon is presented, and thus entail additional costs to billers. Unfortunately for the billers, electronic payments and the use of service bureaus will increase in popularity, causing the percentage of exception items to increase, unless a "non-exception" mechanism for efficiently handling electronic payments without payment coupons is used. The costs to the consumer's bank, if it is not the bill pay service provider, or it is not in cooperation with the service bureau, increase also, since it must modify its check presentment and clearing process to accommodate these unusual transaction which are being forced upon the bank.

With large bill pay service bureaus, which may have many customers of their service paying bills to the same biller, that biller will often receive one check for many customers accompanied by a list of account numbers and amounts for the consumers whose remittances are part of the single check. The biller then must go through the list manually to verify that the account numbers are correct, and then capture the data to their accounting systems. Thus, if more and more consumers start using this alternative payment means, the percentage of remittances which are exceptions will go up, raising the average cost per transaction.

Many proposed bill pay systems are designed with little or no consideration of the costs to parties other than the consumer and the bill pay system operator. For example, U.S. Pat. No. 5,220,501, issued to Lawlor, et al., describes in detail a bill pay system in which the bill pay system operator captures consumer payment directives using a telephone with a small text display. These consumer payment directives are sent to a central computer operated by the system, which then uses an ATM network to obtain funds in the amount of the payment from the consumer's ATM-accessible bank account. Once the funds are obtained into an account of the system operator, the system determines how to pay the biller, either by wire transfer, debit network using the biller's bank account number, or by check and list. While the Lawlor et al. system is presented as being very beneficial to the system operator (i.e., the service provider of bill pay services to the consumer), it has less than desirable effects on the consumers, the consumers' banks, and the billers.

With the Lawlor et al system, consumers run the risk of loss if the system operator were to go out of business between the time a withdrawal is made and the payment is made to the biller. The consumers also cannot pay a bill to a one-time vendor easily, since the system is only set up to pay billers which the consumer has previously identified

days or weeks before a payment to a biller is ordered. There are two reasons for this. First, the Lawlor et al. device for consumer data entry is geared to users who require simple devices and because a keyboard for entry of biller data to enroll a biller would be too complicated. Instead, the consumers submit forms to the system operator identifying the biller, probably by name and address. This identification is inexact, because the system operator might identify the wrong biller, and billers might operate under similar names with similar addresses.

Billers dislike systems such as Lawlor's because each transaction through the system is an exception item to the billers, and if a service bureau makes a mistake, the biller will often find itself fielding the call from consumers when they call to complain about misapplied payments. Billers could try to add a service charge to cover the added expense, in much the same way that mail-order companies charge less for prepayment and retail outlets charge less for using cash, but the problem is that the billers do not know which remittances will come in normally and which remittances will come in via a bill pay service. What is needed is a simple means of shifting the costs of the exception items to the consumers, or lowering the costs of the transactions. That way, if the consumer insists on being an exception item, the biller can recover their costs, and the interests of both the consumer and biller are served.

Several other solutions to the high cost of exception items have been proposed, such as billers getting pre-authorization from consumers to submit debit requests to consumer's bank, or a service which specializes in processing exception items into a form processable by the biller's automated remittance processing system or lockbox. These, however, have not been satisfactory solutions. The former solution provides very little control by the consumer over the withdrawal of funds from its bank account and is only really useful for recurring payments from a particular consumer to a particular biller, while the latter adds an additional cost (albeit usually less than the exception processing costs) over and above the normal remittance processing cost. In some cases, for small recurring payments, the only way a biller's goods or services is offered to a consumer is through pre-authorized debits.

Several bill pay or remittance processing systems proposed in the prior art are described below, but first some background on bill pay is provided. For brevity and clarity, the consumer's account with the biller is referred to herein as the C-B ("consumer-biller") account, thereby distinguishing that account from other accounts: the consumer's account with its bank, the biller's account with its bank, etc. In most cases, the biller uses the C-B account number to uniquely identify the consumer in its records.

Bill pay transactions, however accomplished, have several common elements, which are either explicit or can be implied by the nature of the transaction. The first is presentment: a biller presents the consumer with a bill showing the C-B account number and an amount due. The second common element is payment authorization: the consumer performs some act (e.g., signs a check or other negotiable instrument) which authorizes the consumer's bank to transfer funds from the consumer's account to the biller; this element might occur after presentment or before (as in the case of pre-authorized withdrawals), and need not be explicit (delivery of a check is implicit authorization for the amount of the check). This element is almost always accompanied by some action by the consumer bank to ensure payment to it from the consumer, such as withdrawing the funds from consumer's bank account, posting the amount to the consumer's credit card account or line of credit, etc. The third common element is confirmation to the consumer of the funds withdrawal. The fourth common element is the crediting of the payment to the C-B account. In some cases, the biller acknowledges the crediting with nothing more than refraining from sending a past due bill.

FIGS. 1–3 show block diagrams of existing bill pay systems which implement these four common elements in different ways. In these block diagrams, the participants are shown in ovals, and the flow of material is shown by numbered arrows roughly indicating the chronological order in which the flows normally occur. The arrows embody a link, which is a physical link for paper flow, an data communications channel from one point to another, or other means for transfering material. Where several alternatives exist for a flow, the alternatives might be shown with a common number and a letter appended thereto, such as "2" and "2A". "Material" refers to documents and/or information, whether paper-based ("postal mail"), electronic (e-mail, messages, packets, etc.), or other transfer medium. In most cases, the material which is flowing is shown near the arrow which links the material's source and destination.

FIG. 1 is a block diagram of a conventional paper bill pay system 10, wherein billers send paper bills or coupon books to consumers and consumers return paper checks and payment coupons. Because the majority of today's bill pay transactions occur this way, the proof and capture process for these remittances is highly automated, except for the aptly-named "exception items."

In bill pay system 10, the participants are a consumer C (12), a biller B (14), consumer C's bank (Bank C) 16, biller B's bank (Bank B) 18 and, optionally, a lockbox operator 20. Bank C maintains consumer C's bank account 22 and a clearing account 24, while Bank B maintains biller B's bank account 26 and a clearing account 28. The material passing between the participants includes a bill 30, a remittance 32 comprising a check 34 and a payment coupon 36, an account statement 38, an accounts receivable ("A/R") data file 40, an encoded check, which is check 34 with MICR encoding, and possibly a non-sufficient funds ("NSF") notice 46.

The flow of material between participants in bill pay system 10 begins (arrow 1) when biller B sends bill 30 through the postal mails to consumer C. Bill 30 indicates a C-B account number and an amount due, and is typically divided into an invoice portion to be retained by consumer C and a payment coupon portion to be returned, each of which shows the C-B account number and amount due.

In response to receiving bill 30, consumer C sends remittance 32 to biller B (arrow 2). Remittance 32 contains check 34 drawn on consumer C's account 22 at Bank C and payment coupon 36, preferably included in the return envelope provided by biller B. Biller B then MICR encodes the amount of the remittance onto check 34 to create encoded check 44, and deposits check 44 (arrow 3), and credits consumer C's account in biller B's customer general ledger ("G/L") account database 42. Alternately, remittance 32 is mailed to lockbox operator 20 (arrow 2A), which opens remittance 32, MICR encodes check 34 to create encoded check 44, captures the C-B account number and amount of the check electronically to create A/R data file 40. Lockbox operator 20 then sends A/R data file 40 to biller B, and sends encoded check 44 to Bank B to be credited to biller B's account 26 (arrow 3A). Because check 44 is signed by consumer C, it authorizes Bank C to pass the amount of the check to Bank B after Bank B presents the check to Bank C. The signed check serves as the second common element of

a bill pay transaction: authorization.

However encoded check 44 reaches Bank B, Bank B then presents check 44 to Bank C, along with other checks received by Bank B which were drawn on Bank C accounts (arrow 4). When Bank C receives check 44, it withdraws the amount of the check from C's account 22 and passes the funds to B's account at Bank B (arrow 5). Actually, this funds transfer occurs from C's account 22 to clearing account 24, to clearing account 28, and then to B's account 26, possibly with one or more intermediate settlement banks in the chain (omitted for clarity).

If the funds are not available in C's account 22 to cover the amount of check 44 or if C's account 22 has been closed, then Bank C will return the check to Bank B, who will in turn return the check to biller B. Biller B will then have to reverse the transaction crediting consumer C's C-B account in G/L database 42 and renegotiate payment from consumer C, all at significant cost to biller B. Even if check 44 clears, the process of providing good funds to biller B is not instantaneous, since check 44 must physically travel from biller B to Bank B to Bank C. Of course, if biller B has sufficient credit rating with Bank B, Bank B could move the funds from clearing account 28 to B's account 26 when Bank B receives check 44.

At some time following the clearing of check 44, biller B also updates its A/R records in G/L database 42 to credit consumer C's C-B account, and Bank C confirms to consumer C the withdrawal of the amount of check 44 by listing it on statement 38 and/or by the return of cancelled check 44. If the check doesn't clear, then biller B and other parties to the transaction unwind the payment.

One benefit of bill pay system 10 is that, for nearly all billers, there is no need for biller enrollment (any consumer can pay a biller without prior arrangements or a waiting period). However, many drawbacks of bill pay system 10 are apparent. Consumer C must individually address, mail and track payments to individual billers such as biller B. Bill pay system 10 must reach arrow 4 before funds availability is confirmed. If the funds cannot be confirmed, the progress of the transaction must be reversed, with costs to Bank C, Bank B and biller B. In such a system, consumer C does not have control over when the funds are transferred, because the transfer timing depends on when biller B receives and processes remittance 32 and when Bank B receives check 44 from biller B.

A variation on the above system is the GIRO systems used in several countries in Northern Europe. The GIRO systems were set up there either by the government or the postal system, which is a traditional supplier of financial services. In a GIRO system, it is mandated that each bill payor and each bill payee be assigned a GIRO number. The biller sends bills with its biller GIRO number on the payment coupons. The layout, shape, etc. of the GIRO payment coupons is also mandated, so a consumer will receive similar coupons with each bill. After reviewing the bill, the consumer simply adds their GIRO number to the payment coupon and signs it. Thus, the payment coupon also serves as a banking instrument similar to a check.

The consumers in a GIRO system are comfortable with it because the payment coupons all look the same. The consumer then mails the payment coupons to either a GIRO central processor or its own bank, which then sorts them by biller GIRO number and submits them to the billers. Since the payment coupons are all in a fixed format, they can be easily encoded in a machine readable format, including the payment amount, which the biller pre-prints onto the coupon. If the consumer gives their GIRO number to the biller, the biller can also pre-print that number on the payment coupon as well. Since all the coupons look the same, the banks can process them like a check and achieve economies of scale.

While a GIRO system might be a partial solution to efficient remittance processing, it does not go far enough. Furthermore, in the U.S., it is not suitable, since there are many more billers in the U.S. to coordinate compared with the relatively few billers in Northern Europe which would need to be coordinated. Coordination of billers and getting them all to standardize on a fixed format for bills, even for a few billers is easier in those countries, since the governments there typically take a more active role in payment systems. Also, consumers in the U.S. are less likely to need such a system, because checking accounts are more readily available to consumers in the U.S.

As for the billers, they still have the problems of bill pay system 10, albeit with less of a problem with missing checks or coupons, because the check is the coupon. The biller still must contend with the paper shuffling, checks that do not clear, etc. Also, because the system is funded by float on the funds, there is less of a concern among the parties involved in bill pay to try and balance their costs with other parties. In the U.S., however, one day's float may be an unacceptable cost to the participants in the bill pay system, and it does not allow for competitive rates. A consumer's bank or a biller's bank has no incentive to be more efficient so that it can charge less than another bank and thus compete for a larger market share, since banks do not charge for the GIRO services and have no power to reduce the costs to the participants, nor shift them to the best cost absorber.

FIG. 2 is a block diagram of an alternate bill pay system 50, which reduces the effort required on the part of consumer C relative to bill pay system 10, but which increases costs for billers. The difference between bill pay system 50 and bill pay system 10 is that consumer C initiates payment electronically (or by other non-check means).

Bill pay system 50 includes most of the same participants as bill pay system 10: consumer C, Bank C, Bank B, possibly a lockbox operator (not shown in FIG. 2), and biller B, who is typically not a proactive or willing participant in this system. Additionally, a service bureau S (52) and a Bank S (53) are participants, with service bureau S maintaining a service database 54 which is used to match bill payment orders with billers. The material passing among the participants includes bill 30, as in the prior example, as well as a bill payment order 56 and related confirmation of receipt 66 (both typically transmitted electronically), an enrollment package 57, a biller confirmation 58, a bill payment 60 ("check and list") which includes check 62.

In bill pay system 50, consumer C enrolls in bill pay system 50 by sending service bureau S (arrow 1) enrollment package 57 comprising a voided check and list of billers to be paid by S on behalf of C. S subsequently sends biller B biller confirmation 58 (arrow 2) to verify (arrow 3) that C is indeed a customer of B.

With bill pay system 10 (FIG. 1), consumer C identifies the proper biller by the remittance envelope and the payment coupon, neither of which is available to service bureau S in bill pay system 50. Thus, service bureau S must identify the correct biller for each bill payment order some other way. Typically, service bureau S does this by asking consumer C for biller B's name, address, telephone number and consumer C's account number with biller B ("C-B account number"). Since neither Bank C nor service bureau S may have any account relationship with biller B, they must rely

control how payment information is received.

Payment network 102 maintains biller file 108, which has one record per BRN and is used by Bank C to look up information to be displayed for a consumer under certain circumstances and to update locally maintained copies 158 of the file. FIG. 5 shows the structure of universal biller reference file 108. In file 108, a record for a biller is retrieved by the biller's BRN, the file's key. Each record includes a key (a BRN), a biller bank ID (BID), a C-B format mask (CBMASK), name and address of the biller as appears on the payment coupon included with their bill (to provide consumers with feedback as to whether the correct BRN was entered during a payment or enrollment process), and other useful biller information. The specific record for biller B is located using the BRN 918-272-642. Biller B's record in file 108 indicates bank B's BID and a CBMASK for biller B. The BID, which is "493217" in this example, identifies the destination bank of the payment message, which in this case is Bank B. The BID relieves consumer C from having to know to which bank to send payments, or which account at that bank to credit. With the combination of the BRN and the BID, the destination bank can be identified, and with the BRN, the destination bank can use a privately held file, biller account number (B-acct) table 140 (see FIG. 6), so that consumers and consumer banks are not aware of biller B's account number. One advantage to this arrangement is that, outside of Bank B, biller B's account number is not known, so it would be less likely that someone other than Bank B and biller B could present a withdrawal transaction to that account. One type of withdrawal from biller B's account which is possible knowing only biller B's BRN is a payment reversal message, which is only allowed in those payment networks which allow unsecured payments to be reversed, and a withdrawal can only effect a previously submitted payment message. However, given that the payment reversal message is tied to a payment message, a properly set up payment network cannot be used to effect a net withdrawal (of course, biller B's account might get assessed service fees for the reversal).

The field CBMASK is used to validate C-B account number format, and identifier the format of biller B's C-B account numbers. For example, if biller B was a Visa® card issuer, the biller's CBMASK might be "4932^### #^####^###C", which indicates that a valid consumer's account number with the Visa® card issuer must begin with "4932", followed by three groups of four digits (0-9), the carets ("^") indicating optional spaces, and "C" indicating that the last digit is a check digit. Additionally, the CBMASK field might include a procedure for calculating allowed account numbers, ranges of account numbers or check digits. A Visa® card issuer is used as an example, and file 108 might also include a record for a utility company, whose CBMASK is "###-A-##x", where "A" indicates that a letter must be present in that location and "x" indicates that the last character is not important to identifying the consumer and can be anything.

FIG. 5 shows BRNs in a form using spaces which is easily read and remembered by a person, although data processors typically store and manipulate the BRNs without need for the spaces. The last digit of the BRN is a modulus 10-check digit, which is used to detect errors in BRNs supplied by consumers. Using the above notation, a BRN is checked against the form ###-###-##C, where C is calculated as a modulus 10-check digit.

In a variation of UBF 108, the first digit of the BRN indicates a particular geographic region or the biller's industry, and UBF 108 is subdivided into individual files for each region or industry. This could be used as a means for market separation, efficient file storage, or specialized reporting requirements.

FIG. 6 is a more detailed block diagram of payment network 102 and its environs, which shows how payment message 124 passes from Bank C through clearing subsystem 106 to Bank B. Clearing subsystem 106 is used to log and transfer payment messages 124 from consumer banks to biller banks. Consumer banks and biller banks need not be separate; a bank can be both a biller bank and a consumer bank if it provides the necessary elements of both. Settlement subsystem 104 is coupled to clearing subsystem 106, and is used to transfer funds (or simply net funds) between Bank C and Bank B, and all other consumer and biller banks participating in the payment network, according to the payment messages received and processed by clearing subsystem 106. Settlement subsystem 104 does this by submitting transfer orders 130 to a settlement bank 128.

The major blocks shown in FIG. 6 are Bank C 16, Bank B 18, payment network 102, and settlement bank 128. Bank C is shown with a packet assembler 160 coupled to a UBF (universal biller reference file) copy 158 and to clearing subsystem 106. Bank B is shown with a packet disassembler 162 coupled to clearing subsystem 106, biller account number (B-acct) table 140, and a UBF copy 158 used when Bank B is a consumer bank or when Bank B seeks to independently check C-B account numbers. Payment message 124 is shown with four components: a BRN, a C-B account #, an amount, and a destination BID. Settlement Bank 128 is shown with four accounts: a settlement account 154 for Bank C, a settlement account 155 for Bank B, a settlement account 152 for the payment network, and a settlement account 156 representing settlement accounts for other banks besides Bank C and Bank B. Settlement bank 128 is shown coupled to settlement subsystem 104 to accept transfer orders 130, which would then result in transfers of funds between accounts 152, 154, 155 and other accounts for other banks 156. The accounts 152, 154, 155, 156 might comprise multiple accounts, such as where each bank maintains a settlement account for a variety of currencies.

Clearing subsystem 106 is shown with a transaction logger 164 coupled to a line carrying payment message 124 and to a currency foreign exchange module 166. Settlement subsystem 104 is shown with a net position settlement processor 168 and a settlement report generator 170 coupled to reporting lines 172. Reporting lines 172 are coupled to the banks 16,18 to provide data about net settlement amounts, summary data about payment messages, and currency exchange data, if necessary. In a nonguaranteed payment network system, clearing subsystem also allows NSF messages to follow payment messages to cancel out a payment message sent earlier. In a mixed system, a flag in UBF 108 might indicate which billers are willing to receive nonguaranteed payments and which are willing to receive only guarantee payments, so that Bank C may assess their risk accordingly.

Bank C uses packet assembler 160 to check the data in payment message 124 before it is sent out. Bank C secures funds in the amount of message 124 if it has not already done so, and rejects the transaction before sending message 124 if the funds are not secured and the biller expects a guaranteed payment. Packet assembler 160 also checks the supplied BRN and C-B account number against UBF copy 158. If the BRN is not found in file 158, the transaction is rejected. If the BRN is found, but the C-B account number does not meet the criteria set by CBMASK, the transaction is rejected, thus saving biller B or Bank B the expense of

rejecting the transaction, and providing quicker response to Bank C and consumer C as to the transaction's invalidity. Alternatively, biller B might request that messages which fail the CBMASK test be sent to them with an indication that they failed the CBMASK test. UBF Copies 158 are kept up to date by payment network broadcasts of updates to UBF 108 which come from Bank B and other biller banks.

If the transaction is allowed by Bank C, message 124 is sent into payment network 102, and is received by Bank B. Often, this passage of the message is the entire transaction. Although the transaction is actually between Bank C and Bank B, it is actually a transfer from consumer C to biller B because of the pre-agreed protocols for funds transfer.

Table 140 stores BRNs and biller account numbers such that a BRN can be used to look up a biller's account number. Table 140 might also contain information indicating the desired data transfer protocol for transferring file 40 to biller B. Table 140 does not need to exist outside of Bank B.

Using bill pay system 100, consumers can pay bills presented by billers easily, quickly and accurately, without having to make separate arrangements with each biller in advance. Billers can accept and process bill pay remittances quickly and less expensively than before. Billers also need not deal with each individual consumer in their customer base, but can make arrangements with the biller bank to be attached to bill pay system 100. Billers also have a preferred electronic process they can advertise to consumers wishing to remit bill payments using bill pay system 100. Using bill pay system 100, consumer banks and biller banks are free to provide different interfaces between the banks data processing systems and their customers (consumers and/or billers) to facilitate bill paying depending on the needs and wants of their customers. Even while many consumers use different interfaces to insert bill pay transactions into the consumer banks' bill pay processing systems, and while many billers receive necessary A/R data from their banks in different formats for each biller, the bill pay transactions can flow from consumer banks to biller banks using a novel payment network according to the present invention. With the apparatus described above, and usually in conjunction with a symbol or trademark identifying banks and billers as participants who agree to a set of regulations prescribing payment network activities, good funds can flow from consumers to billers in much less time than was previously possible and with much greater assurance of payment.

FIG. 7 is a block diagram of a variation of the electronic bill pay system shown in FIG. 4, where the customer's bank is allowed to follow up a payment message with a payment reversal message (shown as an NSF notice 46). Additional links are shown as part of payment system 100A. In this system, consumer C issues bill pay order 122 as before, but Bank C issues an unsecured payment message 125 to payment network 102 (arrow 3), which is passed to Bank B (arrow 4). Sometime after sending an unsecured payment record 127 to B (arrow 7) (which informs biller B, in a non-exception item way, of the occurrence of message 125), Bank C determines that consumer C's account does not contain sufficient funds to cover the amount of the previously submitted unsecured payment message 125. Bank C therefore submits an NSF notice 46 to payment network 102 (arrow 8) which passes to Bank B and biller B (arrows 9–12) resulting in the reversal of the previously submitted unsecured payment 125 from B's account 26 at Bank B and the effects of record 127 from B's general ledger 42. While arrows 3 and 8 and arrows 4 and 10 are shown as separate links, often the same path will be used for payment messages and payment reversal messages such as NSF notice 46.

FIG. 8 is an alternate configuration 100B of a bill pay system wherein the payment network operator provides payment data directly to the biller. FIG. 8 shows bill pay system 100B with consumer C, Bank C, payment network 102, bank B, and biller B. Biller B sends invoice 120 to consumer C, who sends bill pay order 122 to Bank C, which issues payment message 124 into payment network 102. Payment message 124 is passed on to Bank B, but the A/R data (data, amount, C-B account #) from message 124 is passed directly to biller B, on behalf of Bank B, and is used to update biller B's O/L database 42. In some cases, this method might be preferred by biller B who can obtain the data sooner, and by Bank B which is no longer obligated to maintain and transfer A/R data to biller B. This is a good alternative for high-volume billers. Optionally, Bank B will provide A/R summary data 129 to biller B.

FIGS. 9–11 describe processes according to the present invention for facilitating consumer bill payment to billers using the previously described apparatus or other apparatus not illustrated here. The processes described in the flowcharts of FIGS. 9–11, in some embodiments, involve manual data entry, automatic data capture, person-to-person interaction among the participants, and/or appropriately programmed computers and computer networks. However, in a preferred embodiment, most of the steps of the process are performed by software routines in computers, computer networks, and telecommunications equipment.

FIG. 9 is a flowchart describing the process of converting a non-participating biller into a participating biller. A participating biller is an entity which bills its customers and collects funds for those bills at least partially through an electronic bill pay system according to the present invention.

The process of a biller becoming a participating biller begins at block 200 when the biller opens a bank account with a participating biller bank. Of course, the biller might already have such an account, in which case this step can be skipped. A participating biller bank is a bank which has agreed to accept payment messages from consumer banks through the payment network in a form specified by the operator of the payment network. A participating biller bank also agrees to maintain a settlement account which the payment network can debit/credit for the net of all transactions (originals, returns, etc.) involving all of the billers sponsored by the biller bank. A participating biller bank also agrees to transfer funds in the amount of received payment messages to billers' accounts, to maintain in their data processing systems a cross-reference table which can be used to identify a biller's account number from just a unique BRN (biller reference number) assigned to the biller, and to abide by the terms and conditions of the payment network rules for services they offer billers.

As part of the agreements with the payment network operator, the banks agree to the terms of processing fees and interchange fees. In this way, the interchange fee can serve as a cost-balancing device. These fees might be paid by the consumer banks and/or the biller banks, and in some cases, some fees will be paid to the consumer banks or the biller banks, in the form of interchange fees. With interchange fees, transactions which otherwise would be uneconomical to one party can occur. The interchange fee is easily collected in the transfer orders submitted to a settlement bank; the transfer orders can move money in any direction between the accounts of the consumer banks, biller banks, and the payment network's settlement account.

At block 202, the biller and the biller bank agree on a data transfer protocol for transferring A/R data included in pay-

ment messages sent to biller bank so that the A/R data can be efficiently (and usually electronically) transferred to the biller. This step may include a connection of leased or dial-up lines between the data processing systems of the biller bank and data processing systems of the biller. Alternatively, the biller bank may sponsor a biller direct connection to the payment network. The agreed-upon protocol between the biller and the biller bank might include terms such as the arrangement of the data to be transferred to the biller, the frequency with which the data is to be transferred, and/or the service charges biller bank collects from biller for the provision of data. While provision of A/R data will be generally expected by billers, it is also possible for the biller and biller bank to agree that biller bank will just deposit the funds and not provide A/R data. Such might be useful for payments to charitable collection funds. At this point, the biller will also indicate to biller bank what constitutes an acceptable C-B account number to biller, so that the biller bank can send it to the payment network for insertion into UBF 188 and subsequent broadcast.

Once the biller and biller bank have agreed to a protocol, then at block 204, the biller bank requests a new biller record from the payment network. In response, at block 206, the payment network issues a new biller reference number which is unique to the biller. In an alternate process, the payment network assigns a pool of numbers in advance to the biller bank, from which the biller's BRN is drawn. The biller bank, in that case, instead of requesting a number, informs the payment network of the activation of a BRN from its pool and the format of acceptable C-B account numbers for that BRN plus other biller-unique data normally printed on a payment coupon for verification that the BRN is the BRN of the desired billee. In a preferred embodiment, this process occurs substantially electronically.

At block 208, the payment network publishes/broadcasts the new participating BRN and related data to all participating consumer-banks, to enable consumer validation of biller and routing of vendor A/R data.

Finally, at block 210, the biller identifies its BRN to its customers, especially on its bills and mailings announcing the new service, and biller is then set up to accept payment network payments. Billers may also at this time actively solicit payment network-based payments from their customers.

In a preferred embodiment, the process is highly automated and simple for a biller. It is expected that the payment network system will have as many participating banks as new participants in the Visa® system. Since this is nearly all major banks, there will be a high probability that any given biller's bank will be a participating bank. Therefore, the biller need only sign up for the payment network service with its existing bank, receive a BRN and publicize its BRN number.

As FIG. 10 shows, the process for consumers to subscribe to a consumer bank's service for paying bills via the payment network system is just as simple. At block 230, a consumer subscribes to an electronic bill payment service with a participating consumer bank. Again, the consumer is quite likely to already bank at a participating consumer bank. If not, participating consumer-banks can be easily identified through the use of a widely recognized logo or service mark, much the same way the Visa® service mark identifies bank Visa® card issuers and merchants accepting Visa® cards for payment.

At block 232, the consumer and the consumer's bank agree to details of a service for consumer C to direct bank C to initiate, and pay for, bill pay orders. A bank's service need not offer all the possible interfaces or payment from more than the consumer's main deposit account. Banks might compete for customers by offering different interfaces and service charges. For example, a consumer bank might offer software to its customers, who would run the software on their personal computers, and the software would transmit bill payment orders over a modem to a modem connected to the consumer bank's data processing system. These bill payment orders might include orders to pay a bill at once, to pay a bill in the future, or to pay a recurring bill periodically. Another possible interface is a voice response system wherein a consumer dials in to a telecommunication system maintained for the consumer bank, listens to questions asked ("Which biller would you like to pay now?", "How much to you want to pay?", etc.), and the consumer responds by pressing keys on the consumer's telephone. The consumer might also use a telephone with a visual display, or an interface using the consumer's television as an interface, such as might be provided as a service of consumer's cable television provider connecting the consumer to the consumer's bank or an ATM. Although it is probably less efficient, the interface to the bank might also be via postal mail, where the consumer mails bill pay orders to the consumer bank. This alternative might be the only solution in areas where telecommunications is not readily available or where the consumer is adverse to using voice response systems or computers.

Next, at block 234, the consumer identifies which of their bills can be paid via the payment network that they want to pay using the payment network. As suggested above, if billers identify their participation in the payment network system by displaying the designated logo, and consumers are aware of the meaning of the logo, the consumers will be able to easily identify participating billers.

FIG. 11 is a flowchart of a bill payment process according to the present invention between a participating consumer and a participating biller. At block 250, the biller sends the consumer a bill, via postal mail, e-mail, or other means. This bill indicates the amount due, the biller's BRN, and a due date. Any participating consumer can pay a bill through the payment network to any participating biller. If a consumer and a biller are participants in the payment network system, and the biller sends the consumer a bill containing an indication that the biller can and will accept payment network payments, the biller's BRN, an amount due, a due date, and the consumer's C-B account number, the consumer can easily handle the payment through the payment network. Because the biller reference number is universal (different banks and different consumers all use the same number), the number can be assigned to a biller before a consumer indicates the desire to pay the biller, thus making it possible for the biller to include its BRN on the very first bill sent to the consumer after subscribing to the bill pay service. In many cases, enrollment of a biller by a consumer is not necessary, and if it is, it involves nothing more than the consumer reviewing a copy of the biller information gathered by Bank C from the UBF record with the biller's BRN, to verify that the BRN refers to the desired biller, and adding up static data tables which would allow the consumer to select a source of funds, a BRN, and/or a C-B account # with a pointer. Pointers provide quicker data entry, in much the same way as "speed-dial" provides quicker dialing of telephone numbers. By contrast, in other bill pay systems, a biller's number may be different in different countries, in different bill pay service provider files, or different for each consumer.

At block 252, the consumer sends a bill payment order to the consumer's bank (Bank C). The order instructs Bank C to debit C's account with Bank C (or otherwise secure funds) on the date indicated in the order by the amount indicated in the order and forward the funds to the payment network with the BRN and C-B account number indicated in the order.

At block 254, Bank C checks for availability of funds for the transaction. If the funds are not available and Bank C does not have some other agreement with the consumer, the flow proceeds to block 256, where the consumer is informed of the rejection of the bill pay order. Significantly, an order stopped for non-sufficient funds does not get very far in a guaranteed funds payment network system before it gets reversed. Of course, Bank C might continue the transaction and later try to reverse it, but if the payment network rules are such that Bank C cannot reverse a payment message once it is sent out, then this is not likely to happen. Although the funds are normally taken from C's account, by agreement, Bank C might also obtain the funds from a savings account, line of credit, credit card account, or other financial instrument of the consumer.

Assuming the funds are available or Bank C agrees to be at risk for the funds, the flow proceeds to block 258. At block 258, Bank C confirms the biller using Bank C's copy of the UBF 158, or Bank C sends a query message to the payment network asking for the data. In some cases, biller confirmation is only done the first time an order with a given BRN is requested, and Bank C maintains a list of confirmed billers on behalf of the consumer.

Next, at block 260, Bank C checks the BRN and the C-B account number in the payment order for validity. If the BRN is not valid, or the C-B account number is not valid for the biller associated with the BRN, then flow passes to block 262, where the order is rejected, otherwise the flow continues to block 264. Even though Bank C checks the order against the UBF copy, the payment network may again check the payment message formulated from the order and reject it if somehow Bank C incorrectly allowed the payment message to go through.

Next, at block 264, Bank C submits a payment message to the payment network, and by the payment network rules is liable for the amount of the payment. Because the funds pass from Bank C to Bank B through the payment network, there is very little chance that the consumer will lose money. Of course, Bank C may go out of business, but the fact that the money moved from one account under Bank C's control to another should not affect the ability of the consumer to get the funds back. If a payment message was not sent, on the other hand, if the payment message was sent, by the payment network rules, the destination bank agrees to accept the payment message from Bank C and must credit the biller's account, who in turn must credit the consumer's account with the biller. Compared with using a service bureau, which may be holding consumer funds, the payment network provides a much safer bill pay mechanism to consumers.

At block 266, the payment network debits Bank C in the amount of the payment message, and credits Bank B (the biller's bank) by the same amount. Then, at block 268, Bank B credits the biller's account, who in turn, at block 270, credits the consumer's account with the biller. Bank B might also supply further validation services to biller B. In that case, biller B would supply Bank B with a list of valid C-B account numbers, which Bank B would use to validate incoming payment messages and return those that contain invalid C-B account numbers, which is a more rigorous check of the account number than merely checking to see if the account number is in the right format.

FIG. 12 is a block diagram of an alternative bill pay system 300 wherein consumer C 302 initiates bill payment order 122 (arrow 1) via service provider S 312, interposed between C and Bank C 304, through an existing funds network 310, such as the Visanet® network, rather than by dealing directly with Bank C. Service provider 312 maintains a UBF copy 158 so that it can provide the necessary validations of payment message 124. Service provider 312, which is not C's bank, uses transactions over VisaNet® network to secure good funds from Bank C 304. One way to accomplish this is by submitting a customer verification message 318, which includes some form of password identifying C and the amount of bill payment transaction 122, over the VisaNet® network 310 and waiting for authorization 316 (arrows 2–5) to proceed with sending payment message 124 (arrow 6).

In one specific embodiment, authorization for a bill pay order is secured by providing a machine-readable card 320 and a card reader 322 to consumer C. Card reader 322 is coupled to Service Bureau 312 and Bank C 304, and indicates whether or not Consumer C is in possession of machine-readable card 320. If consumer C is in possession of machine-readable card 320, and passes it through card reader 322, card read 322 will transmit this event and it will be considered evidence of authorization for the bill pay order.

Service bureau S, upon the receipt of authorization 316 from Bank C, submits payment message 124 over the VisaNet® network (arrows 6–7) resulting in settlement transfer order 130 being sent to settlement bank 128 (arrow 8). A/R data file 40 is delivered by Bank B 308 to biller B 306 (arrow 9).

The above description is illustrative and not restrictive. Many variations of the invention will become apparent to those of skill in the art upon review of this disclosure. Merely by way of example, service bureau might be interposed between consumers and consumer banks, and between billers and biller banks, as agents of banks which elect not to provide the bill pay service directly to consumers or billers. As another example, messages passed between participants are described above specifically at times, but a message could be interchangeably embodied in a postal mail paper form, an e-mail message, a telephone voice response session, etc. Furthermore, while some participants in the above electronic bill pay system are referred to as consumer banks and biller banks, they need not necessarily fit the legal definition for a bank, but instead may be a savings and loan, a thrift, a credit union, brokerage firm, etc., which maintains accounts for consumers and/or billers and which is coupled to the payment network.

The scope of the invention should, therefore, be determined not with reference to the above description, but instead should be determined with reference to the appended claims along with their full scope of equivalents.

What is claimed is:

1. An electronic funds transfer network for transferring funds from a consumer account to a biller account, wherein a funds transfer from the consumer account occurs when a first transaction processor applies a debit portion of an accounting transaction to the consumer account and a funds transfer to the biller account occurs when a second transaction processor applies a credit portion of a resulting accounting transaction to the biller account, comprising:

order input means for consumer input of a bill pay order, said bill pay order including at least a reference to a

biller identification (biller ID), a payment amount, and an identifier of a consumer-biller account to be credited, wherein said consumer-biller account is used to determine amounts owed to a biller by a consumer;

a first transaction processor, configured to at least maintain a balance of the consumer account and process debit portions of accounting transactions against the consumer account, said first transaction processor being a computer operated for a consumer financial institution with whom the consumer maintains the consumer account;

means for transmitting said bill pay order from said order input means to said first transaction processor;

payment data packet generation means, controlled by said first transaction processor, for generating a payment data packet based on said bill pay order, said payment data packet comprising at least data fields indicating said biller-ID, said payment amount and said consumer-biller account identifier;

an electronic packet transfer network which electronically couples said payment data packet generation means at an originating node to a plurality of similar nodes, wherein each node is uniquely identified by a financial institution identifier (RID), said electronic packet transfer network including destination translation means for translating said biller ID field of said payment data packet into a pointer to a destination node;

a second transaction processor located at said destination node, configured to at least maintain a balance of the biller account and process credit portions of accounting transactions against the biller account, said second transaction processor being a computer operated for the biller financial institution with whom a biller maintains the biller account;

payment data packet accepting means, coupled to said electronic packet transfer network and to said second transaction processor, for accepting said payment data packet from said electronic packet transfer network and applying a credit transaction to the biller account according to said payment amount field of said payment data packet; and

a biller accounts receivable data processor, coupled to one of said electronic packet transfer network or said payment data packet accepting means, which processes biller data included in said payment data packet and provides said biller data in a form used by said biller to update said consumer-biller account to reflect a credit based on to said payment amount.

2. The apparatus of claim 1, wherein said destination translation means includes a universal biller reference data file stored in an electronic mass storage device coupled to said destination translation means, said universal biller reference data file including criteria for consumer-biller account numbers, thereby allowing consumer-biller account numbers in data fields of said payment data packet to be validated by said electronic packet transfer network.

3. The apparatus of claim 1, wherein said order entry means is configured to use pointers to point to at least one of a consumer-biller account number, a biller ID, or a source of funds, the apparatus further comprising a look-up table memory searchable by the first transaction processor which allows conversion of a pointer to a pointed-to actual value.

4. The apparatus of claim 1, wherein said bill pay order further comprises a data field indicating of a source of funds among a plurality of sources of funds controlled by said consumer.

5. The apparatus of claim 1, wherein said first transaction processor and said second transaction processor are subprocessors in a larger computer operated by a financial institution maintaining both the consumer account and the biller account.

6. The apparatus of claim 1, wherein a given financial institution operates both said first transaction processor and said second transaction processor.

7. The apparatus of claim 1, further comprising an internal funds transfer computer which transfers funds from the consumer account to a suspense account to secure funds from the consumer account to cover said payment amount of a payment data packet transmitted over said electronic packet transfer network.

8. The apparatus of claim 1, further comprising verifying means coupled to said first transaction processor, for verifying authorization to obligate said consumer for said payment amount.

9. The apparatus of claim 8, wherein said verifying means comprises means for said consumer to insert a machine-readable card into a card reader coupled to said first transaction processor, wherein possession of a valid card is evidence of authorization.

10. The apparatus of claim 1, wherein said first transaction processor is operated by a third-party transaction processor.

11. The apparatus of claim 1, wherein said payment amount is denominated in a first currency by said second transaction processor and is denominated in a second currency by said first transaction processor.

12. The apparatus of claim 11, wherein the first transaction processor further comprises currency conversion means for denominating the debit portion of the accounting transaction to the consumer account in a third currency.

13. The apparatus of claim 1, wherein said order input means is an automatic response unit, comprising a consumer telephone which emits computer detectable tones when keys are pressed, and an interactive processor which prompts the consumer to press keys on said consumer telephone, and converts the resulting tones into electronically stored data representing an information content of said bill pay order.

14. The apparatus of claim 1, wherein said order input means is a voice response unit, comprising a consumer telephone which interfaces to a voice recognition unit which prompts the consumer to verbally provide bill pay information and converts the resulting speech into electronically stored data representing an information content of said bill pay order.

15. The apparatus of claim 1, wherein said order input means is a personal computer operated by said consumer which includes means for transferring data from said personal computer to the first transaction processor including data representing an information content of said bill pay order.

16. A method of paying bills electronically, wherein funds are effectively transferred between a consumer and a biller, comprising the steps of:

accepting a payment amount and a biller identification (ID) from the consumer;

converting said payment amount and said biller ID into a bill pay order, which bill pay order is stored as an electronic data record;

transmitting said bill pay order to a first transaction processor, said first transaction processor being a computer configured to maintain a balance of a consumer account and to apply debit portions of accounting transactions against said consumer account;

applying a debit of said payment amount against said

consumer account using said first transaction processor;

transmitting an outbound payment data packet from said first transaction processor to an electronic payment network, said outbound payment data packet including at least data fields indicating said payment amount, said biller ID and an indication of a consumer-biller account number;

identifying, from said biller ID field of said outbound payment data packet, a destination node for said outbound payment data packet and a destination account identifier (ID);

transmitting an inbound payment data packet from said electronic payment network to a second transaction processor located at said destination node, said inbound payment data packet including at least data fields indicating an inbound payment amount and said destination account ID, said second transaction processor being a computer configured to maintain a balance of a biller account and to apply credit portions of accounting transactions against accounts including a biller account identified by said destination account ID;

applying a credit of said inbound payment amount against said biller account using said second transaction processor; and

providing at least said inbound payment amount and said consumer-biller account number to a biller accounts receivable data processor.

17. The method of claim 16, further comprising the step of securing at least a guarantee of funds from said consumer in favor of a consumer financial institution before transmitting said outbound payment data packet.

18. The method of claim 16, further comprising the step of sending a payment reversal data packet from said first transaction processor to said electronic payment network within a predetermined time after sending said outbound payment data packet if said outbound payment data packet is sent without a consumer financial institution first securing funds and funds are subsequently not available from the consumer.

19. The method of claim 16, wherein said step of providing data to said biller accounts receivable data processor is performed by said second transaction processor transferring an accounts receivable data packet to said biller accounts receivable data processor, said accounts receivable data packet including at least data fields indicating said inbound payment amount and said indication of said consumer-biller account number.

20. The method of claim 16, wherein said step of providing data to said biller accounts receivable data processor is performed by said electronic payment network transferring an accounts receivable data packet to said biller accounts receivable data processor, said accounts receivable data packet including at least data fields indicating said inbound payment amount and said indication of said consumer-biller account number.

21. The method of claim 16, wherein said step of generating said inbound payment data packet occurs only when data in said outbound payment data packet is verified in a verification step.

22. The method of claim 16, further comprising a verification step which comprises the steps of:

checking a biller reference file, stored in an electronic mass storage device coupled to said electronic payment network, to determine if said biller ID of said outbound payment data packet is an active biller ID; and

sending an error data packet back to said first transaction processor when said biller ID of said outbound payment data packet is not an active biller ID.

23. The method of claim 22, wherein said verification step further comprises the steps of:

checking said consumer-biller account number of said outbound payment data packet against predetermined criteria for valid account numbers of each biller, said predetermined criteria being stored in said biller reference file; and

sending an error data packet back from said electronic payment network to said first transaction processor indicating the invalidity of said consumer-biller account number when said consumer-biller account number is not valid according to said predetermined criteria.

24. The method of claim 23, further comprising the step of flagging outbound and inbound payment data packets sent over said electronic payment network to indicate that said predetermined criteria was not met, when said predetermined criteria is not met.

25. The method of claim 16, further comprising the step of adjusting at least one of an amount debited from said consumer account, an amount debited from a consumer financial institution account and an amount credited to a biller financial institution account to effect a transfer of at least one of a processing fee to an operator of said electronic payment network or an interchange fee to balance costs between said consumer financial institution and said biller financial institution.

26. The method of claim 16, wherein at least one element of said bill pay order is a pointer to data stored in a look-up table memory coupled to said first transaction processor, the method further comprising the step of substituting pointed-to data for said pointer using said first transaction processor.

27. The method of claim 16, further comprising the step of translating said consumer-biller account number provided by said consumer according to a translation table provided by said biller accounts receivable data processor to effect new consumer-biller account numbers.

28. A method for paying a bill from a biller to a consumer, comprising the steps of:

verifying authority of the consumer to issue a bill-pay order;

accepting said bill pay order at a consumer financial institution from the consumer, said bill pay order comprising data elements indicating at least a source of funds, a biller ID, a customer-biller account number assigned by the biller and a payment amount, wherein said biller ID identifies the biller to each consumer;

if said bill pay order is guaranteed, securing at least a guarantee of funds from the consumer in favor of said consumer financial institution;

electronically transmitting an outbound payment data packet from a first transaction processor to an electronic payment network, wherein said outbound payment data packet includes at least said payment amount, said consumer-biller account number and said biller ID, and wherein said first transaction processor maintains balance information on said source of funds and is configured to process debits and credits applied to said source of funds;

electronically comparing said biller ID to an index of a biller reference file to determine a destination node for an inbound payment data packet corresponding to said outbound payment data packet;

transmitting said inbound payment data packet from said electronic payment network to a second transaction processor located at said destination node, wherein said second transaction processor maintains balance information on a biller account held in favor of the biller and is configured to process debits and credits applied to said biller account;

applying a credit to said biller account with said second transaction processor, said credit being in an amount corresponding to a payment amount of said inbound payment data packet;

applying a debit to an account held in favor of said consumer financial institution by an amount corresponding to said payment amount of said outbound payment data packet; and

providing, from said second transaction processor, data fields from said inbound payment data packet including at least said payment amount and said consumer-biller account number.

29. The method of claim 28, wherein at least one of said data elements is a pointer to data stored in a look-up table memory coupled to said first transaction processor and said pointed-to data is substituted in said outbound payment data packet for said pointer by said first transaction processor.

30. An electronic payment network for transferring funds from a consumer to a biller to pay a bill owed by the consumer to the biller, comprising:

a network coupling transaction processors of participating financial institutions;

a first transaction processor of an initiating financial

institution, comprising means for sending an outbound payment data packet to said electronic payment network in response to a bill pay order issued by the consumer, said outbound payment data packet identifying the biller by a biller ID assigned to the biller for use with each consumer who is a customer of the biller and which biller ID is disclosed to consumers desiring to make payments to the biller using said electronic payment network;

a conversion means, coupled to said electronic payment network, for converting an outbound payment data packet to an inbound payment data packet, including a conversion of said biller ID to a destination node and a destination account ID; a second transaction processor of a receiving financial institution located at said destination node, capable of receiving said inbound payment data packet from said electronic payment network, identifying a biller account from said biller ID, debiting an account held in favor of said initiating financial institution by a payment amount included in said outbound payment data packet, and crediting an account held in favor of said receiving financial institution by a payment amount included in said inbound payment data packet; and

means for crediting the consumer's account with the biller by said payment amount included in said inbound payment data packet.

* * * * *

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FEE TRANSMITTAL

Note: Effective October 1, 1997, Patent fees are subject to annual revision

Complete if Known: 2000

Application Serial Number	08/890,398
Filing Date	July 9, 1997
First Named Inventor	Johnson
Group Art Unit	2767
Examiner Name	J. Myhre
Attorney Docket No.	JHN-001 (4750/2)

GROUP 2700

OIPE JUN 07 2000 PATENT & TRADEMARK OFFICE

METHOD OF PAYMENT

1. ☒ Payment Enclosed:
☐ Check ☐ Money Order ☐ Other

2. ☒ The Commissioner is hereby authorized to credit or charge any fee indicated below to Deposit Account No. 20-0531.
☐ Required Fees (copy of this sheet enclosed).
☒ Additional fee required under 37 CFR 1.16 and 1.17.
☒ Overpayment Credit.

FEE CALCULATION

1. FILING FEE

Large Entity Fee ($)	Fee Description	Fee Paid
690	Utility filing fee	0
310	Design filing fee	0
150	Provisional filing fee	0

	Number Filed	Number Extra	Rate	Amount
Total Claims		-20 =	x $ 18.00 =	0
Independent Claims		-3 =	x $ 78.00 =	0
☐ Multiple Dependent Claim(s), if any			$260.00 =	0
			TOTAL:	0
			SMALL ENTITY DISCOUNT:	0
			SUBTOTAL (1) ($)	0

2. AMENDMENT CLAIM FEES

	Claims Remaining After Amend.	Highest No. Previously Paid For	Present Extra	Rate	Fee Paid
Total	-	=		x $ 18.00 =	
Indep.	-	=		x $ 78.00 =	0
☐ First Presentation of Multiple Dep. Claim				+ $260.00 =	0
				TOTAL:	($)
				SMALL ENTITY DISCOUNT:	($) 0
				SUBTOTAL (2)	($) 0

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee ($)	Small Entity Fee ($)	Fee Description	Fee Paid
130	65	Surcharge - late filing fee or oath	
50	25	Surcharge - late provisional filing fee or	
130	130	Non-English specification	
2,520	2,520	For filing a request for reexamination	
110	55	Extension for reply within first month	
380	190	Extension for reply within second month	
870	435	Extension for reply within third month	
1,360	680	Extension for reply within fourth month	
1,850	925	Extension for reply within fifth month	925.00
300	150	Notice of Appeal	
300	150	Filing a brief in support of an appeal	150.00
260	130	Request for oral hearing	
130	130	Petitions to the Commissioner	
50	50	Petitions related to provisional applications	
240	240	Submission of Information Disclosure Statement (37 CFR 1.97(c))	
130	130	Submission of Information Disclosure Statement (37 CFR 1.97(d))	
690	345	Filing a submission after final rejection (37 CFR 1.129(a))	
690	345	For each additional invention to be examined (37 CFR 1.129(b))	
		Other (Specify)	
		SUBTOTAL (3) ($)	1,075.00

SUBTOTAL (1)	0
SUBTOTAL (2)	0
SUBTOTAL (3)	1,075.00
TOTAL ($)	1,075.00

CORRESPONDENCE ADDRESS

Direct all correspondence to:
Patent Administrator
Testa, Hurwitz & Thibeault, LLP
High Street Tower-125 High Street
Boston, MA 02110
Tel. No.: (617) 248-7000
Fax No.: (617) 248-7100

SIGNATURE BLOCK

Respectfully submitted,

Date: June 7, 2000
Reg. No.: 42,545
Tel. No.: (617) 248-7383
Fax No.: (617) 248-7100

John V. Forcier
Attorney for the Applicants
Testa, Hurwitz & Thibeault, LLP
High Street Tower-125 High Street
Boston, MA 02110

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06-08-00 GP2767 AF $

Express Mail Label No. EM401137173US

TRANSMITTAL FORM

Application Serial Number	08/890,398
Filing Date	July 9, 1997
First Named Inventor	Johnson
Group Art Unit	2767
Examiner Name	J. Myhre
Attorney Docket No.	JHN-001 (4750/2)

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JUN 12 2000
GROUP 2700

ENCLOSURES *(check all that apply)*

☒ Fee Transmittal Form	☐ Copy of Notice to File Missing Parts of Application (PTO-1553)	☐ Appeal Communication to Board of Patent Appeals and Interferences
☒ Check Attached ☐ Copy of Fee Transmittal Form	☐ Formal Drawing(s)	☒ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
☐ Amendment/Response	☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition to Convert to a Provisional Application	☐ Status Letter
☐ After Final ☐ Affidavits/declaration(s) ☐ Letter to Official Draftsperson including Drawings [Total Sheets ____]	☐ Power of Attorney (Revocation of Prior Powers)	☒ Return Receipt Postcard ☐ Certificate of First Class Mailing under 37 C.F.R. 1.8
☒ Extension of Time Request	☐ Terminal Disclaimer	☐ Additional Enclosure(s) *(please identify below)*
☐ Information Disclosure Statement ☐ Form PTO-1449 ☐ Copies of IDS Citations	☐ Executed Declaration and Power of Attorney for Utility or Design Patent Application	
☐ Certified Copy of Priority Document(s)	☐ Small Entity Statement	
☐ Response to Missing Parts/ Incomplete Application	☐ Request for Refund	
	☐ After Allowance Communication to Group	

CORRESPONDENCE ADDRESS	SIGNATURE BLOCK
Direct all correspondence to: Patent Administrator Testa, Hurwitz & Thibeault, LLP High Street Tower 125 High Street Boston, MA 02110 Tel. No.: (617) 248-7000 Fax No.: (617) 248-7100	Respectfully submitted, Date: June 7, 2000 Reg. No. 42,545 Tel. No.: (617) 248-7675 Fax No.: (617) 248-7100 John V. Forcier Attorney for Applicant(s) Testa, Hurwitz & Thibeault, LLP High Street Tower 125 High Street Boston, MA 02110

FORCIER\4750\2.1012024_1

Notice of Allowability	Application No. 08/890,398	Applicant(s) JOHNSON, BARBARA S.
	Examiner James W Myhre	Art Unit 3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *BPAI Decision of October 10, 2002*.

2. ☒ The allowed claim(s) is/are *1-19*.

3. ☐ The drawings filed on _____ are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☒ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
   1) ☐ hereto or 2) ☒ to Paper No./Mail Date *3*.
   (b) ☐ Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)
1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This action is in response to the Decision rendered by the Board of Patent Appeals and Interferences on October 30, 2002.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Cline on July 13, 2004.

The application has been amended as follows:

In the claims:

10. A system for automated loan repayment, comprising:

at a merchant, means for accepting a customer identifier as payment from the customer and for electronically forwarding information related to the payment to a computerized merchant processor, wherein the merchant associated with the payment has an outstanding loan to a lender; and

at the computerized merchant processor, means for receiving the information related to the payment from the merchant, means for authorizing and

settling the payment, and means for forwarding to the lender a portion of the payment as a loan payment [associated with the payment].

Allowable Subject Matter

3. Claims 1-19 are allowed.

Examiner's Statement of Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

While prior art was found which discloses using a portion of a payment for a transaction at a merchant to purchase an insurance policy *for the customer* (Cohen et al, 4,750,119) or a contribution to a charity selected *by the customer* (Hovakimian, 5,466,919), according to the Decision this prior art does not render it obvious to use the portion of the transaction payment to benefit the merchant instead of the customer. Therefore, the non-obvious novelty of the invention is using the portion of the transaction payment as a remittance towards repayment of an outstanding loan owed *by the merchant* as claimed in independent Claims 1 and 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. James W. Myhre whose telephone number is (703) 308-7843. The examiner can normally be reached on weekdays from 6:30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber, can be reached on (703) 305-8469. The fax phone number for Formal or Official faxes to Technology Center 3600 is (703) 872-9326. Draft or Informal faxes may be submitted to (703) 872-9327 or directly to the examiner at (703) 746-5544.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 308-1113.

JWM
July 13, 2004

James W. Myhre
Primary Examiner
Art Unit 3622